DOCUMENT RESUME

ED 134 523 95 SO 009 778

AUTHOR	Hill, Russell A.; Wallace, Joan D., Ed.
TITLE	Research Studies Reporting Experimental Effects in the Moral/Ethical/Values Domain: An Annotated Bibliography. Planning for Moral/Citizenship Education.
INSTITUTION	Research for Better Schools, Inc., Philadelphia, Pa.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	Nov 76
CONTRACT	400-76-0043
NOTE	163p.; For related documents, see SO 009 777-779
AVAILABLE FROM	Research for Better Schools, Suite 1700, 1700 Market Street, Philadelphia, Pennsylvania 19103 ($10.00 paper cover)
EDRS PRICE	MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS	*Abstracts; Aggression; *Annotated Bibliographies; Behavior Patterns; Conflict Resolution; Conformity; Educational Psychology; Elementary Secondary Education; Empathy; *Ethical Instruction; Ethical Values; Higher Education; Instructional Materials; Interdisciplinary Approach; Literature Reviews; *Moral Development; Preschool Education; *Research Reviews (Publications); Resource Materials; Risk; Skill Development

ABSTRACT

This document contains abstracts of experimental research studies dealing with the training and acquisition of behaviors, skills, and dispositions which can be termed "moral" in themselves or can contribute to moral/ethical behavior. More specifically, the entries represent controlled experimental studies which describe a treatment and measure treatment results. The document presents abstracts of over 1,500 documents published after 1960. The majority are published reports of research in professional psychology or educational psychology journals, others are unpublished dissertations or research findings, and a few are summaries of projects within elementary or secondary school classrooms. Most of the studies involve quantitative techniques of evaluation and populations of five or more subjects. Direct or indirect relevance to the development of educational programs is indicated. The abstracts are classified by major effect areas, which are defined as general categories of reasoning, affective states, and skills and behaviors that are produced or affected by training in the moral/ethical/values area. The 15 effect areas are aggression, altruism, attitudes, conflict resolution, conformity, cooperation, empathy, moral development/judgment, reasoning and judgment, reaction to transgression, resistance to temptation, risk taking, role taking, self-control, and values. Effect areas are arranged alphabetically and studies are ordered alphabetically by author within each area. The definition for each effect area precedes the section and the treatment techniques are identified in the heading for each abstract and used as entries in the subject index. Author and subject indexes are included. (Author/DB)

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RESEARCH STUDIES REPORTING EXPERIMENTAL EFFECTS IN THE MORAL/ETHICAL/VALUES DOMAIN: AN ANNOTATED BIBLIOGRAPHY

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NOVEMBER 1976

SO 009 778

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Planning for Moral/Citizenship Education is funded by the National Institute of Education (NIE)

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The work upon which this publication is based was performed pursuant to Contract 400-76-0043 with the National Institute of Education, Department of Health, Education and Welfare.

Introduction/Organization

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ACKNOWLEDGMENTS

We wish to thank Louis M. Maguire, Research for Better Schools, for his support in the preparation of this document. Helen Satterthwaite, Deborah Gawthrop, and Patty Dively helped with production tasks.

INTRODUCTION

Origin and Description of Document

This document contains abstracts of experimental research studies dealing with the training and acquisition of behaviors, skills, or dispositions which can be termed "moral" in themselves or can contribute to moral/ethical behavior. More specifically, the entries represent controlled experimental studies which described a treatment and measured treatment results. The majority were published reports of research in juried professional psychology or education psychology journals; others were unpublished dissertations or unpublished research findings; a few were summaries of projects within elementary or secondary school classrooms. They were retrieved during a more comprehensive literature search described below.

Search Procedure

The studies were collected as part of an extensive literature search and analysis, undertaken by Research for Better Schools (RBS), focused on identifying and assessing effective instructional techniques for teaching skills for ethical action. First, using a list of standard descriptors which identify the cognitive, affective, and behavioral aspects of the moral/ethical/values area, fundamental studies were retrieved from published bibliographies establishing a list of basic citations. References in each new work were then cross-checked against this list, and additional studies were obtained as necessary, the process being repeated until all useful documents were on hand. Finally, the original search was up-dated by selecting pertinent materials from standard indices (***Psychological Abstracts, Dissertation Abstracts International,*** ERIC, and ***Current Index to Journals of Education***) from June 1973 to December 1974.

Of the over 1,500 documents retrieved in the initial literature search, over 150 were research studies particularly salient to the analysis of instructional techniques, and it is these studies which were brought together and abstracted for this document.

While this collection of abstracted studies does not purport to be all-inclusive, it is reasonably comprehensive and representative of the significant work in the field of moral/ethical training.

Selection Criteria

Partly because of the original intent of the literature search from which the present compilation was derived, the selection of studies was governed by the following criteria:

- studies having a publication date later than 1960 (with a few exceptions)
- studies generally using quantitative techniques of evaluation (with a few exceptions)
- studies using American subjects in preschool through college age range (with a few exceptions)
- studies using a population of five or more subjects
- studies not using real or simulated physical punishment (e.g., loud buzzers or electric shock)

- studies in which the author demonstrated a direct connection between the Treatment(s) and Effect Area(s) in the moral/ethical/values domain

- studies with direct or indirect relevance to the development of educational programs in the moral/ethical/values domain

Organization of Document

The abstracts are classified by major Effect Areas – general categories of reasoning, affective states, and skills and behaviors that are produced or affected by training in the moral/ethical/values area. Effect Areas are arranged alphabetically, and studies are ordered alphabetically by author(s) within each Effect Area. For studies with more than one Effect Area, the abstract is printed under the first (primary) Effect Area listed; the citation for this study is repeated following the study's other Effect Area(s), with page references indicating where the full abstract can be found. Author and Subject Indexes are included for readers interested in topics, authorship, or both.

Terms and Definitions

The Effect Areas by which abstracts are categorized are:

- Aggression
- Altruism
- Attitudes
- Conflict Resolution
- Conformity
- Cooperation
- Empathy
- Moral Development/Judgement
- Reasoning and Judgement
- Reaction to Transgression
- Resistance to Temptation
- Risk-taking
- Role-taking
- Self-control
- Values

The definition for each Effect Area precedes that section in the main body of the document except for those Effect Areas where there were so few studies that a formal definition has been omitted. Treatment types, basically the studies' independent variables, are identified in the heading for each abstract and used as entries in the Subject Index. If a study has more than one Effect Area, they are all included under the appropriate Treatment(s) entry(ies) within the Subject Index. Treatment descriptors and their definitions are:

- ***Attitudinal/Affective Manipulation*** – a technique used to influence or alter the subject's perception of a situation, including such factors as the subject's opinion, mood, or expectations

- ***Direct Training*** – a technique used to train the subject to think or behave in a specific manner (e.g., didactic training, rule-giving)

- ***Discussion*** – a technique requiring the verbal deliberation of the subject, usually within a group, on a specific topic

- ***Modeling*** – a technique which exposes the subject to the behavior of another (model) in order to determine the type of subject behavior that results

- ***Reinforcement*** – a technique in which the subject is rewarded for performing a response

- ***Role-playing*** – a technique requiring the subject to pretend to take the part of another person and act as that other person would act in a given situation
- ***Verbalization*** – a technique and mediating process requiring the subject to either think or speak directions to produce a desired behavior

The descriptive phrases following some Effect Area and Treatment identifications are not intended as standard descriptors; they simply further refine the major headings.

Related Studies

During the literature search over 40 related studies with no true training procedures were retrieved. These include manipulations of various situational factors (e.g., subject's mood, aspects of a social-interaction situation, subject's expectations), and thus it can only be inferred that learning resulted from such manipulations. (These are distinguished from the Attitudianl/Affective Manipulation studies which *do* use training procedures). While these studies do not meet the criteria established for training studies, they show causal relationships between their independent and dependent variables which may be useful to those interested in training for a specific Effect Area and may specify the conditions under which the learning in certain Effect Areas can occur. Where applicable, a list of citations of such studies is presented at the end of Effect Area sections, with a notation of the experimental manipulation. The citation lists do not constitute a complete or even representative bibliography of this class of studies; they simply contain those "quasi-training" studies which were uncovered during the first phase of the literature search.

Preparation of Abstracts

A standard abstracting procedure was followed in the preparation of this document. Each abstract displays common descriptors to identify the major Effect Area(s) and Treatment(s); states the major hypothesis(es); identifies the age and number of the population; specifies Treatment(s) procedures and the results of that Treatment(s); and in some cases adds remarks (identified as the author's or the reviewer's) concerning implications, relevance to other areas, and theoretical orientation.

Document Orientation

As stated, this document reflects a particular interest in identifying and assessing effective instructional techniques to train children in the moral/ethical/values domain. The training studies, and the other elements of the literature collection, are selective to the extent that they relate to that instructional interest and emphasis. That is, they provide guidelines, point up directions, and constitute a solid knowledge base concerning teaching strategies for moral/ethical/values training programs.

The RBS staff, aware of the increasing multidisciplinary interest in moral/ethical/values training, feel that the cumulative knowledge contained in these experimental studies makes a significant contribution to the field. To our knowledge, no similar research tool is available. It is our belief that this collection will enable readers to gain a comprehensive view of the field and compare research within or among specific areas.

Abstracts

AGGRESSION

DEFINITION: Aggression—Antisocial acts intended to do physical or psychological harm to another person.

. . . .

EFFECT AREA(S): Aggression

TREATMENT(S): Modeling—with reinforcement; without reinforcement

Adams, G., & Hamm, N. A partial test of the "contiguity" and "generalized imitation" theories of the social modeling process. The Journal of Genetic Psychology, 1973, 123(1), 145-154.

The study tested two theories of the acquisition of imitative behavior—the contiguity theory (which states that imitative learning is a product of the association between the stimulus of a model's behavior and the subject's response) and the reinforcement-for-behavioral-similarity theory (which states that imitative behavior is learned because its similarity to a model's behavior is reinforcing). No hypothesis was stated. Thirty-six kindergarten children (mean CA 65 months) were placed in one of two conditions: (a) Modeling Reinforced—subjects were reinforced with trinkets for imitating a model's responses; and (b) Control—subjects were not reinforced for imitating the model. All subjects then observed a film in which a model exhibited aggressive, antisocial behavior toward a doll. Subjects were then observed for imitative aggressive responses while alone with the same doll. Eventually the experimenter returned and tested subjects' recall of the model's behavior by asking them to recall as many responses as they could. Subjects who were initially reinforced for imitating a model's aggressive behavior spontaneously performed significantly more aggressive responses than did subjects who were not so reinforced, but when asked to recall the model's responses, Controls did not recall significantly fewer responses than did Modeling-reinforced subjects. The authors concluded that the spontaneous-performance result supports the theory that modeling (behavioral similarity) is reinforcing, and the recall result supports the contiguity theory of the acquisition of imitative behavior.

EFFECT AREA(S): Aggression

TREATMENT(S): Modeling—reinforcement varied

Bandura, A. Influence of model's reinforcement contingencies on the acquisition of imitative response. Journal of Personality and Social Psychology, 1965, 1, 589-595.

The study replicated previously observed effects of consequence-to-models on performance of imitative responses (Bandura, Ross, & Ross, 1963b). The author hypothesized that different amounts of imitative behavior would be exhibited under different conditions of model reward. Thirty-three boys and 33 girls of preschool age (mean CA 51 months) were divided randomly among three conditions: (a) exposure to an Aggressive Model Rewarded for antisocial aggressive responses toward a plastic doll; (b) exposure to an Aggressive Model Punished; and (c) exposure to an Aggressive Model, No Consequences. The Aggressive-model-rewarded group exhibited the most aggressive responses, followed in order by the Aggressive-model, No-consequences and Aggressive-model-punished groups (all differences were significant). Boys uniformly exhibited significantly more aggressive behaviors than did girls, but girls showed significantly greater inhibition of aggressive responding than did boys in the Aggressive-model-punished condition. Incentives to recall the aggressive responses were then provided to all groups to determine the extent to which the differences in imitative behavior were performance rather than learning differences. The hypothesis that performance differences would disappear across modeling conditions was confirmed. The initially large sex differences in the performance of aggression was reduced by the incentives; however, girls still displayed less aggression than did boys.

EFFECT AREA(S): Aggression

TREATMENT(S): Modeling—live model; filmed cartoon model

Bandura, A., Ross, D., & Ross, S. Imitation of film-mediated aggressive models. Journal of Abnormal and Social Psychology, 1963a, 66(1), 3-11.

The study hypothesized that: (a) film-mediated human and cartoon models would facilitate imitative learning of aggression; and (b) subjects with a predisposition to inhibit aggressive responses due to anxiety (as measured by teacher ratings) would display fewer aggressive responses than would subjects whose aggression-related anxiety was low. Forty-eight girls and 48 boys (mean CA 52 months) were placed in four Experimental conditions: (a) Live Adult Aggressive Model; (b) Film-mediated Adult Model; (c) Film-mediated Cartoon Model; and (d) No-model Control. Each group was subdivided into same-sex and opposite-sex subject-model groups. After viewing the models, subjects were mildly frustrated and tested for aggression. Children in all Model conditions exhibited significantly more aggression than did the Controls, with the Film-mediated Adult Model producing slightly more aggressive responses than did the Live and Cartoon Models. Boys exhibited significantly more aggressive responses than did girls. There was no relation between a predisposition to inhibit aggression and number of aggressive responses—which occurred, suggested the authors, because stimulus cues for permissiveness for aggression (the models' behavior) overrode subjects' proprioceptive cues for inhibition. The authors admitted that in most modeling situations subjects' "aggression" may consist of the behavioral responses without the subjective intention to be aggressive, but they maintained that imitative learning of aggressive responses could make children more likely to be aggressive when a provocative situation supplies the intent.

EFFECT AREA(S): Agression

TREATMENT(S): Modeling—reinforcement varied

Bandura, A., Ross, D., & Ross, S. Vicarious reinforcement and imitative learning. Journal of Abnormal and Social Psychology, 1963b, 67, 601-607.

The study examined the effect of consequence to models on the imitative learning of aggressive behavior. It was hypothesized that children who witnessed a film-mediated model being reinforced for antisocial aggressive behavior toward a peer would display more imitative and nonimitative aggressive responses than would children who saw the model punished for the same behavior. Forty preschool boys and 40 preschool girls (mean CA 51 months) were exposed randomly to four viewing conditions: (a) Aggressive Model Rewarded, (b) Aggressive Model Punished, (c) Nonaggressive Model Exhibiting Expressive (but not aggressive) Behavior, and (d) No-model Control. For all children, witnessing an Aggressive Model Rewarded resulted in significantly greater imitative aggressive behavior than did witnessing an Aggressive Model Punished. For boys, the Aggressive-model-punished condition resulted in less imitative and nonimitative aggressive behavior than did the Control condition, and the Aggressive-model-rewarded condition resulted in more nonimitative behavior than did the Control condition. For girls, nonimitative aggression remained constant across conditions, and aggressive behavior was inhibited in the Nonaggressive-model condition. The authors suggested that sex differences were due to differing predispositions to exhibit aggression, and that for individuals with a strong predisposition to aggressive behavior, learning self-control may require the observation of aggressive models being punished. The authors further suggested that the influence of successful "villainy," such as that which occurs on TV, may override children's value systems and contribute to problems in self-control.

EFFECT AREA(S): Aggression

TREATMENT(S): Attitudinal/Affective Manipulation—filmed violence; justification for violence varied

Berkowitz, L., & Rawlings, E. Effects of film violence on inhibitions against subsequent aggression. *Journal of Abnormal and Social Psychology*, 1963, *66*(5), 405-412.

The study examined whether fantasy violence (as on TV) enhances or reduces the likelihood of subsequent aggressive behavior by the audience. It was hypothesized that angry subjects would be encouraged to express their hostility by witnessing an aggressive scene in which aggression was justified. One hundred sixty male and female college students were placed in three conditions: (a) Angered, Justified Aggressive Fantasy—subjects were insulted by the experimenter while taking a test and then given the opportunity to witness a movie in which the protagonist, depicted as a mean and cynical person, received a violent beating; (b) Angered, Less-justified Aggressive Fantasy—angered subjects viewed a protagonist whose actions were said to be the natural result of a bad environment and to cause him much guilt; and (c) Unangered Control—subjects merely viewed the film under both conditions of justification. Finally, subjects' hostility to the experimenter was measured unobtrusively on a questionnaire. Subjects in the Justified-aggressive-fantasy conditions showed significantly less sympathy for the protagonist than did subjects in the Less-justified-aggressive-fantasy conditions, indicating that the justified-unjustified manipulation was effective. Angered, Justified-aggressive-fantasy subjects expressed significantly more hostility to the experimenter than did Angered, Less-justified-aggressive-fantasy subjects, but subjects expressed equal amounts of hostility toward the test itself, provided they had not made pre-movie evaluations of the experimenter (the reason for this exception is unexplained). The authors suggested that their results support the instigational rather than the vicarious-catharsis theory of aggression—that witnessing aggression, instead of lowering the likelihood of subsequent aggressive behavior by dissipating the subject's aggressive drive vicariously, may increase the likelihood of aggressive behavior, provided that the witnessing subject is angry and that in the incident he witnessed, aggression is justified. The authors further pointed out that purveyors of the TV moral code which dictates punishment for the "bad guys" may create instances of "justified aggression," which, at times, could facilitate rather than inhibit viewers' aggressive behavior.

EFFECT AREA(S): Aggression

TREATMENT(S): Reinforcement—negative reinforcement; reinforcement of incompatible behaviors

Brown, P., & Elliott, R. Control of aggression in a nursery school class. Journal of Experimental Child Psychology, 1965, 2, 103-107.

The study was an exercise in controlling aggression in schoolchildren by the removal of generalized reinforcement (attention) and reinforcement of incompatible behavior (cooperation). Hypotheses were not explicitly stated. Twenty-seven boys aged 3 to 4 years were rated for physical and verbal aggression prior to two 2-week Treatment sessions conducted 2 weeks apart. Measurements of aggression were obtained on a pretest during the second week of each Treatment session and in a follow-up just prior to Session 2. Treatments consisted of withdrawal of attention (by teachers) from children's aggressive acts (intervening when necessary without punishment) and paying unusual attention to cooperation and helpful behavior. Children's aggressive behavior was significantly reduced (declining steadily from pretest to first Treatment test to follow-up to second Treatment test, except for a temporary recovery of physical aggression between the first Treatment and follow-up tests). Even the most aggressive boys, said the authors, became friendly and cooperative "to a degree not thought possible."

EFFECT AREA(S): Aggression—tolerance in others

TREATMENT(S): Attitudinal/Affective Manipulation—filmed violence

Drabman, R., & Thomas, M. Does media violence increase children's toleration of real-life aggression? Developmental Psychology, 1974, 10(3), 418-421.

The study was concerned with the effect of filmed (especially TV) violence upon children's reaction to aggression. It was hypothesized that observation of filmed violence would increase children's tolerance of real-life aggression and thus decrease their propensity to "offer aid" to victims of aggression. Forty-four third and fourth graders viewed either an aggressive film—a "Hopalong Cassidy" short with gunfights, fisticuffs, etc.—or no film. Subjects were then allowed to view on a TV monitor the play of two children purported to be in an adjacent experimental room. The two children started an argument, began fighting, and ended by upsetting the TV camera. The dependent measure was how fast the subjects reported the altercation to the experimenter, who was waiting outside the room. Children who witnessed the aggressive film responded significantly less quickly than did children who saw no film. Sex of the child did not affect speed of response. The authors suggested that filmed violence produced increased tolerance of aggression either by decreasing subjects' emotional responsivity (i.e., subjects adapted to aggression) or by suggesting to them that aggression is normative behavior in the real world.

EFFECT AREA(S): Aggression—prosocial behaviors

TREATMENT(S): Attitudinal/Affective Manipulation—violent TV programs; prosocial TV programs

Friedrich, L., & Stein, A. Aggressive and prosocial television programs and the natural behavior of preschool children. *Monographs of the Society for Research in Child Development*, 1973, *38*(4), 1-64.

The study addressed the perennially hot question of whether violence on TV causes children to be more aggressive, and also examined the other side of the coin—the possible prosocial effects of some TV programs. Specific hypotheses were not stated, but it was expected, following principles of imitative learning, that children's behavior would be affected by the content of TV programs. During the first 3 weeks of a 9-week summer nursery school session, 97 children aged 3.8 to 5.5 years were observed and rated for aggressive and prosocial behaviors (cooperation, sharing, helping, etc.) during free play. During the middle 4 weeks children viewed films of authentic TV programs according to one of three conditions: (a) Aggressive Programs—subjects watched "Superman" and "Batman" cartoons (with human characters); (b) Prosocial Programs—subjects watched 12 episodes from the "Mister Rogers Neighborhood" series, each of which stressed a different aspect of social and emotional development; and (c) Neutral Programs—subjects watched children's shows with little or no aggressive or prosocial content. The films were aired in daily 1/2-hour sessions. Frequency and intensity scores of behavior in five categories were obtained by three observers during four experimental intervals: prior to training (baseline ratings), during the first 2 weeks of training, during the last 2 weeks of training, and during a 5-day postviewing period. The five categories were: aggression; prosocial interpersonal behavior; persistence—attempts at mastery of tasks; self-regulation—obedience, tolerance of delay; and regression—emotional outbursts, withdrawal. All behavioral ratings were submitted to a logarithmic transformation. Children who were initially above the median in interpersonal aggression showed a significantly greater increase in aggression when exposed to the Aggressive Programs than when exposed to the Neutral or Prosocial Programs; children below average in aggression showed no change in aggression as a result of the programs. Lower-SES subjects showed significantly more aggressive behavior when viewing Aggressive or Neutral Programs than when viewing Prosocial Programs; the *prosocial* behavior of high-SES subjects increased significantly only in the Aggressive-programs condition. For all subjects, exposure to the Aggressive Programs produced a decline, and exposure to the Prosocial Programs an increase, in several indices of self-regulation. The authors suggested that theoretical principles in addition to those provided by theories of imitative learning are needed to explain TV's effects, since TV involves multiple exposure to complex stimuli over a period of time. The authors also cautioned that the complexity of the TV stimulus and of human behavior in social situations renders suspect any simple explanation of their results.

EFFECT AREA(S): Aggression

TREATMENT(S): Modeling—animate target; inanimate target

Hanratty, M., Liebert, R., Morris, L., & Fernandez, L. Imitation of film-mediated aggression against live and inanimate victims. Proceedings of the 77th Annual Convention of the American Psychological Association, 1969, 4, 457-458.

The study hypothesized that: (a) more aggression would occur against an inflated plastic clown (a socially acceptable target) than against a human wearing similar attire; and (b) subjects exposed to an aggressive model would exhibit more aggression than would subjects who were not so exposed. Twenty fourth- and fifth-grade boys (exact age not given) were divided among four Experimental conditions: (a) Modeling, Inanimate Target of Aggression—subjects saw a 2-1/2 minute modeling film of a human aggressing against a human clown, then were given an opportunity to aggress against an inanimate clown of identical appearance; (b) Modeling, Human Target—after seeing the film subjects were given the opportunity of aggressing against a human dressed similarly to the film clown; (c) No Modeling, Inanimate Target; and (d) No Modeling, Human Target. Subjects' aggressive acts, which were scored by raters, included shooting the target with a toy gun, hitting the target with a mallet, verbal aggression, and novel aggressive responses. Subjects in the Modeling groups aggressed significantly more than did subjects in the No-modeling groups, and the Inanimate Target received significantly more aggression than did the Human Target. Aggression toward the plastic clown was vigorous and often novel, whereas aggression toward the human target was milder and entirely nonverbal. The authors concluded that observing aggression can increase the likelihood of the observer's exhibiting aggression and pointed to implications regarding depiction of violence in the mass media.

EFFECT AREA(S): Aggression
Altruism—sharing behaviors

TREATMENT(S): Modeling—live model; filmed cartoon model

Hapkiewicz, W. G., & Stone, R. D. The effect of realistic versus imaginary aggressive models on children's interpersonal play. Child Study Journal, 1974, 4(2), 47-57.

The study assessed the effects of filmed violence on children by using a measure of interpersonal aggression. On the basis of the social-learning theory (Bandura, 1969), it was hypothesized that: (a) children who viewed a filmed real-life aggressive sequence would demonstrate more aggressive activity than would children who viewed an aggressive cartoon or Control (nonaggressive) film; and (b) children who viewed the aggressive cartoon would not differ in their aggressive behavior from children in the Control group. One hundred eighty elementary children (mean CA 8 9 years) viewed a film in pairs in one of the following conditions: (a) Real-life Aggressive Film,

(b) Aggressive Cartoon, and (c) Control, Nonaggressive Film. After watching the appropriate movie the pair of subjects was told that they could watch another movie through a peephole in a box. It was possible for only one child to see at a time. The aggressive attempts (verbal or physical) one child made to force the other away from the peephole were measured; sharing responses were also recorded. Findings indicated that there was a significant treatment sex interaction; boys who saw the Real-life Aggressive Film were significantly more aggressive than boys who saw Aggressive Cartoons or a Nonaggressive Film. While boys were generally more aggressive than girls in all conditions, girls shared more than did boys in all conditions. The author implied that the Real-life Aggressive Film activated the dominant response tendencies of each sex and that in the case of girls it activated prosocial responses.

EFFECT AREA(S): Aggression—nonverbal

TREATMENT(S): Reinforcement—of verbal behaviors

Lovaas, O. Interaction between verbal and nonverbal behavior. Child Development, 1961, 32, 329-336.

The study concerned the effect of reinforcing one class of aggressive behaviors (verbal) upon the occurrence of another class (physical). No hypotheses were stated. Fourteen subjects aged 3 years—5 months to 4 years—7 months were introduced to a machine for administering aggression to a doll, and their operant (i.e., normal) level of aggression was measured. Half the subjects were reinforced and the other half not reinforced for aggressive verbal behavior toward the doll, and the amount of physical aggression they subsequently exhibited toward the doll was compared. Subjects who were reinforced for aggressive verbal behavior increased their level of physical aggression significantly, whereas the level of physical aggression for subjects not reinforced for verbal aggression remained constant. The author concluded that physical aggression can be increased by reinforcing verbal aggression and discussed four theoretical explanations of the interaction between verbal and nonverbal behavior.

EFFECT AREA(S): Aggression

TREATMENT(S): Modeling—consistent reinforcement; inconsistent reinforcement

Rosekrans, M. A., & Hartup, W. W. Imitative influences of consistent and inconsistent response consequences to a model on aggressive behavior in children. Journal of Personality and Social Psychology, 1967, 7, 429-434.

The experiment examined the effects of inconsistent reinforcement (successive reward and punishment) of an aggressive model. Because the inconsistent reinforcement of the model was expected to have an additive (canceling) effect on the observer's behavior, it was hypothesized that subjects who observed the inconsistent model: (a) would show less aggression with longer latencies than would subjects who observed a rewarded model; (b) would show more aggression with shorter latencies than would subjects who observed a punished model; and (c) would not differ from subjects who viewed no model. Sixty-four preschool children in two age groups (CA 36 to 58 months, and 60 to 71 months) were assigned to the following conditions: (a) Model Rewarded—the model received verbal approval for her behavior; (b) Model Punished—the model received verbal punishment for her behavior; (c) Inconsistently Reinforced Model—the model was both verbally rewarded and punished; and (d) No-model Control. Following the treatment all the subjects were first mildly frustrated and then allowed to play with the same toys as those used in the Modeling conditions. Observation records were used to judge: (a) frequencies of imitative, partially imitative, and nonimitative aggression; (b) latencies of the above responses; and (c) number of 15-second intervals spent in various behaviors. Experimental data supported the hypotheses and confirmed previous findings regarding the consistent reinforcement of models. The consequences to the model affected the performance of nonimitative aggression by younger children but not by older children, a result which implied that vicarious reinforcement was situation-specific for the older subjects.

EFFECT AREA(S): Aggression

TREATMENT(S): Modeling—censure varied

Wheeler, L., & Smith, S. Censure of the model in the contagion of aggression. Journal of Personality and Social Psychology, 1967, 6(1), 93-98.

The study was concerned with the effect of censure on the contagion of aggression, contagion being defined as a subject's imitating a model's performance of an act which he would ordinarily not perform on his own. It was hypothesized that: (a) the observer's restraint against performing aggression would be reduced by observing a noncensured model aggress; and (b) censure by a high-status experimenter would reinstate restraint against aggression, whereas peer-censure would not and self-censure would to a lesser extent. One hundred nineteen Naval enlisted men (mean CA 19.3 years) were subjects in a group-interaction situation consisting of the subject and the taped voices of three confederates: Confederate A, who stated opinions and became the object of aggression; Confederate B, the aggressive model; and Confederate C, who reacted to Confederates A and B. Subjects were placed in one of six conditions: (a) No Instigation—B aggressed verbally "in a vile and violent manner" toward A's entirely innocuous opinion, while C was indifferent; (b) No Aggression—although A's opinion was extreme and provocative, B reacted only with calm disapproval and C was indifferent; (c) No Censure—A's opinions were extreme, B aggressed violently, C was indifferent; (d) Experimenter Censure—like (c), and the experimenter's taped voice censured B for his aggression; (e) Peer Censure—like (c), and C censured B for his aggression; and (f) Self-censure—like (c), and B censured himself for his aggression. Subjects' opinion of A, which they chose from phrases on the *Berkura Hostility Scale* and stated openly, was the measure of subjects' aggression. Subjects in the No-censure condition exhibited significantly more aggression than did subjects in the Control conditions (a) and (b). Censure produced the predicted ordering of amount of aggression, with Experimenter Censure restraining aggression the most, followed in order by Self-censure, Peer Censure, and No Censure; however, only Experimenter Censure resulted in significantly less aggression than did No Censure. Subjects liked Confederate B significantly less when he was censured by another than when he did not aggress or censured his own aggression. Also, results of a mood measure revealed that all but the No-instigation subjects experienced significant negative mood shifts during the experiment, and depression scores were significantly greater in the Experimenter-censure group than in any other.

Citations of Abstracts Dealing with Aggression Which Appear in Full under Another Effect Area

Grusec, J. Demand characteristics of the modeling experiment: Altruism as a function of age and aggression. *Journal of Personality and Social Psychology*, 1972, *22*(2), 139-148. (p. 23)

Citations of Studies Related to Aggression without True Training Effects

Berkowitz, L. Some factors affecting the reduction of overt hostility. *Journal of Abnormal and Social Psychology*, 1960, *60*(1), 14-21.
Manipulation—hostility induced via impression formation

Gordon, J., & Smith, E. Children's aggression, parental attitudes, and the effects of an affiliation-arousing story. Journal of Personality and Social Psychology, 1965, 6, 654-669.
Manipulation—affiliation arousal

Siegel, A. Film-mediated fantasy aggression and strength of aggressive drive. Child Development, 1956, 27(3), 365-378.
Manipulation—opportunity for fantasy aggression

ALTRUISM

DEFINITION: Altruism—Behavior intended to benefit another person, including helping, sharing, and donating (generosity) behaviors. Altruism as operationalized in the studies in this document usually requires an element of self-sacrifice.

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EFFECT AREA(S): Altruism—helping behaviors
Empathy

TREATMENT(S): Modeling
Attitudinal/Affective Manipulation—subjects' observational set varied

Aderman, D., & Berkowitz, L. Observational set, empathy, and helping. *Journal of Personality and Social Psychology*, 1970, *14*, 141-148.

The authors, in searching for an adequate explanation for the process by which models promote altruism, investigated whether different empathic responses mediate the influence of models on helping behavior. They hypothesized that: (a) negative empathic responses, generated by the observation of an unhelped needy person, would increase helping behaviors; (b) positive empathic responses, generated by the observation of a helping model, would also increase helping behaviors; and (c) empathic responding would be affected by the observational set of the observer, i.e., whether he is imagining how he would feel if he were in the other person's shoes (Imagine-self set) or imagining the feelings of the person being observed (Imagine-him set). One hundred twenty male college students, divided into pairs, listened to a taped conversation between two people and were asked to attend to either: (a) the person in need, or (b) the potential helper while adopting either (1) the Imagine-self observational set or (2) the Imagine-him observational set. The potential helper either (c) did not help, (d) helped but was not thanked, or (e) helped and was thanked. After listening to the tape and filling out a mood questionnaire, subjects had the opportunity to help the experimenter score data. Results showed that subjects who attended to either the needy person who received no help or the helper who received no thanks helped the experimenter significantly more than did subjects who had attended to the potential helper who did not help. Data from the mood questionnaire suggested that different empathic responses mediated the helping behaviors. There were no significant differences between subjects in the Imagine-him and Imagine-self conditions except in the condition where subjects observed a thanked helper. Although results tended to support the proposed empathic-response explanation of helping behavior, the authors acknowledged that the lack of any observational Controls and insignificant differences in mood comparisons rendered that interpretation tentative. They also admitted that the experiment did not explain the mechanism by which empathy-generated emotions promote helping behavior.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—intensity of exhortation varied

Anderson, J., & Perlman, D. Effects of an adult's preaching and responsibility for hypocritical behavior on children's altruism. Proceedings of the 81st Annual Convention, American Psychological Association, 1973, 291-292.

The author, challenging previous research (Bryan, 1970) suggesting that a model's preaching did not affect donation behavior, predicted that there would be a positive correlation between the preaching intensity of a model and the subject's donations. The study also investigated the relationship between a model's responsibility for her failure to donate and the subject's evaluation of her. On a tape-recorded interview a teacher-model exhorted 84 sixth-grade boys to donate money to poor children but failed for various reasons to donate herself. The following conditions were varied in a 3 x 3 factorial design: The model preached with (a) High Intensity, (b) Low Intensity, or (c) None—model could think of no reason why he should donate. The model's responsibility for not donating was (d) High, (e) Low, or (f) None. As expected, subjects who had heard a model preach with High Intensity donated more than did subjects who had heard the model in the Low-intensity condition or had heard no exhortation; there were no significant differences between the two latter conditions. Students' evaluations showed a negative response to the model in the High-responsibility condition but a neutral response to the model in the None- and Low-responsibility conditions. Evaluations of the model were not affected by the intensity of the preaching, contrary to the effects found in Bryan's study. The author implied that models who preach with strong exhortation might be useful in teaching altruistic behavior simply because intense messages make a point more clearly and hold the audience's attention better than do weaker messages.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling
Verbalization

Bryan, J. *Preaching and practicing self-sacrifice: Their locus of effect upon children's behavior and cognition.* Paper presented at the meetings of the American Psychological Association, Washington, D.C., 1969.

The study was concerned with how children's altruistic behavior (giving money to the March of Dimes) would be affected by the verbal advice and behavioral examples of a same-sex model on a TV screen. Six hundred children in the first through fifth grades were exposed to the following Experimental conditions: Subjects saw (a) an altruistic model *practicing* altruistic behavior; (b) an altruistic model *preaching* altruistic behavior; (c) a greedy model *practicing* greedy behavior; (d) a greedy model *preaching* greedy behavior; (e) an inconsistent model *practicing* altruism and greedy behavior; and (f) an inconsistent model *preaching* altruism and greedy behavior. Behavioral example (practicing) affected children's sharing behavior but not their advice to other children, while the model's exhortations (preaching) affected children's advice to peers but not their behavior. (Reviewer's Comment: The ERIC summary provided no more detailed information.)

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—exhortation; contingency of affect

Bryan, J.H. Model affect and children's imitative altruism. *Child Development,* 1971, *42,* 2061-2065.

The study explored the effects of immediate and delayed vicarious reinforcement on donating behavior. The author theorized that the verbalizations of a model might help a child to better learn the contingencies between a model's affective changes and his motor acts. Thirty-six male first and second graders watched a filmed model donate part of his winnings to charity either: (a) with exhortations (e.g., "It's good to give to sick children") or (b) without exhortations. Half the subjects viewed the model in the: (c) Immediate-affect condition—the model made statements showing positive affect (e.g., "I'm happy" or "This is fun") 4 to 6 seconds after donating; and half in the (d) Delayed-affect condition—the model made statements of affect 5 to 12 seconds after the act. After the modeling sequence each subject was left alone to play a bowling game and to donate his winnings. Results showed that subjects in the Immediate-affect condition donated significantly more than did subjects in the Delayed-affect condition. The conditions of exhortation interacted significantly with different experimenters but not with the timing of Affect conditions. The effects of timing of affect could not be linked to the subjects' varying interpretations of the model's source of affect or the model's attractiveness. The author concluded that the immediacy of affect to response is a critical factor in imitative altruism.

EFFECT AREA(S): Altruism-generosity

TREATMENT(S): Modeling—videotaped models
Reinforcement—social (by model)

Bryan, J.H., Redfield, J., & Mader, S. Words and deeds about altruism and the subsequent reinforcement power of the model. Child Development, 1971, 42, 1501-1508.

The study investigated the relationship between the strength of reinforcement and a model's preaching and practicing of altruism. Ninety-six second- and third-grade subjects viewed videotaped models playing a game, with Experimental conditions being: (a) Verbal Appeal—the model either preached charity, preached selfishness, or gave neutral verbalizations; (b) (Behavioral Example—the model either donated her game winnings to charity or kept them for herself; and (c) Social Reinforcement—the model either gave verbal approval to the subject who chose a particular response in his own game trial or gave no verbal approval. As predicted, models who preached and practiced charity and subsequently socially reinforced the subject elicited the greatest amount of altruism. Contrary to expectations, the model who preached and practiced altruism but did not reward it elicited the least amount of altruism, since subjects in this condition maximized their own material gain. Subjects' judgments of the model's "niceness" were associated with her exhortations and donations, not with social reinforcement.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—performance; exhortation; control of subjects' future resources

Bryan, T. H., & Walbek, N. H. The impact of words and deeds concerning altruism upon children. Child Development, 1970a, 41, 447-457.

The study was designed to test in combination two previous findings that: (a) a model's behavior was more effective in producing change than were his exhortations; and (b) a model had more influence when he controlled the future resources of the subject than when he did not. The authors hypothesized that: (a) a model's behavior would be more effective than his exhortations in producing change when he had little future control of the subject's resources; and (b) when the model had future control of the subject's resources the influence of his exhortations would increase. Seventy-two second-, third-, and fourth-grade girls viewed a videotaped adult model who played a bowling game and contributed some of her winnings to charity. The following conditions were varied in a 2 x 2 x 2 factorial design: (a) High Power of the model (she was identified as the experimenter) or Low Power of the model (the model was not the experimenter); (b) the model preached generosity (on game trials the model did not win) or preached greed (on game trials the model did not win); and (c) the model practiced generosity (donated some winnings to charity) or practiced greed (kept all winnings for self). The experiment did not strongly replicate earlier work (Bryan & Walbek, 1970) which suggested that behavioral example caused subjects to donate more to charity than did exhortation. Effects of the model's practices upon donation were only marginally significant, and the influence of preaching was not significant. Models under the High-power conditions were not more effective than those under Low-power conditions.

EFFECT AREA(S): Altruism—generosity.

TREATMENT(S): Modeling—exhortations and practices varied

Bryan, J. H., & Walbek, N. H. Preaching and practicing generosity; Children's actions and reactions. Child Development, 1970b, 41, 329-353.

A series of four experiments was designed to assess the differential effects of words, deeds, and contradictory words and deeds upon generosity. The basic treatment in each of the experiments employed a model who had an opportunity to donate his winnings from a bowling game to charity. The following conditions were varied: (a) Preach Generosity, (b) Preach Selfishness, (c) Neutral Preaching, (d) Practice Generosity, and (e) Practice Selfishness. Treatment procedures were slightly altered and extended in each experiment in order to isolate specific information. Subjects were third and fourth graders with Experimental-group numbers ranging from 65 to 168. Results from Experiment I indicated that the model's behavioral example significantly influenced donations, but his exhortations did not. Experiment II, using a peer model, replicated the results of Experiment I, but only for girls. Both the preaching and practices of the model determined the attractiveness of the model (a rating given the model by the subject: very nice, nice, not very nice, very bad). Inconsistency between preaching and practices did not affect donations. Experiment III replicated the influence of behavioral example found in Experiment I and the effects of preaching and practices on attractiveness found in Experiment II. Experiment III also demonstrated that there was little correlation between the subjects' preachings about charity and their donating behavior. Results from Experiment IV, testing for attractiveness ratings of the model unconfounded with subjects' donation and recall of Experimental conditions, demonstrated the inability of children to recall the model's inconsistency between words and deeds. The author attributed the lack of effect of contradictory words and deeds to the conceptual difficulty of connecting the two. He implied that attitudinal consistency is not an important value for children and that modeling effects were due to the definition of specific desired behaviors rather than arousal of a norm for altruistic behavior.

EFFECT AREA(S): Altruism—sharing behaviors

TREATMENT(S): Reinforcement—social approval

Doland, D. J., & Adelberg, K. The learning of sharing behavior. Child Development, 1967, 38(3), 695-700.

The study compared sharing behavior in two groups of preschool children. It was hypothesized that: (a) more children from a private nursery school than children from a welfare center would share before training; and (b) more nursery school children than welfare center children would learn to share after social reinforcement. The sharing behavior of 20 children (all white) in a private nursery school and of 16 children at a welfare center (mostly black) was measured. (The mean CA of both groups was 4.5 years.) The subjects were then placed in a situation with a confederate who was a white peer. A game was used both to measure spontaneous sharing and to provide a training situation. During the game a subject was given pictures of two categories of animals, five of one (e.g., cats) and two of another (e.g., birds). The confederate received seven pictures of the same category as that in which the subject had received two pictures. The object of the game was for each child to paste like animals on a large sheet of paper. The experimenter indicated that if the subject shared his pictures, he would receive social approval. If the subject shared on the following test-trial, his participation in the project was completed. If the subject did not share, he participated in a second training-trial in which the confederate was socially reinforced for sharing with the subject. Sharing was measured during another trial of the game. Results from the pretraining trial of the game indicated that 50% of the nursery school children shared, while only 12% of the welfare center children shared. After training, all of the initial nonsharers in the nursery school group learned to share, and 9 out of 14 nonsharers in the welfare center group learned to share. Although no hypothesis about sex differences was offered, the findings showed that four out of five nonsharers were welfare center boys. The author implied that while the nursery school children appeared to be more responsive to the training than were the welfare center children, manipulation of sex or race of the confederate and experimenter might have altered the results.

EFFECT AREA(S): Altruism
Aggression

TREATMENT(S): Modeling—model's performance and verbal intent

Grusec, J. Demand characteristics of the modeling experiment: Altruism as a function of age and aggression. Journal of Personality and Social Psychology, 1972, 22(2), 139-148.

The study was designed to test the theory that imitative behavior may be simply a subject's response to cues of how he should behave in the social situation of the modeling experiment. It was hypothesized that: (a) for older children who had acquired the social norm of altruism, a verbal statement of a model's intent to share would be as effective a cue in eliciting sharing behavior as would a model's actual sharing; and (b) for younger children who had not acquired the norm, the model performance would elicit more sharing behavior than would verbalization of model intent. Twenty boys and 20 girls aged 7 years, and 30 boys and 30 girls aged 11 years, were placed in three Experimental conditions: (a) Model Performance—same-sex model performed sharing behavior; (b) Model Verbalization—same-sex model verbalized an intent to share but was not given the opportunity to do so; and (c) Control—subjects were exposed to the same experimental situation in the absence of a model. As predicted, Model Performance and Model Verbalization produced equal sharing in older children. However, Model Verbalization and Model Performance also produced equal sharing in younger girls. Younger boys shared only when exposed to the performing model. The authors suggested that an explanation for the results could be that the young girls responded to the model's verbal intention because they possessed a greater need for social approval and were more verbally fluent than the young boys, not that they had acquired the norm for altruism earlier than boys.

As a basis for a second experiment, the authors suggested that more than a cue for appropriateness might be required to elicit sharing behavior, but that aggression, the performance of which may be intrinsically rewarding or at least not aversive, might be elicited as readily by a model's verbalization as by a model's performance. Twenty-seven boys and 27 girls aged 8 and 9 years were placed in three Experimental conditions: (a) Model Performance—a same-sex model performed aggressive responses consisting of physical aggression and various destructive responses toward toys; (b) Model Verbalization—a same-sex model stated his intention to perform the identical aggressive responses but was not given the opportunity to do so; and (c) Control—subjects were exposed to the experimental materials in the absence of a model. Contrary to prediction, children who saw a model performing aggressive responses subsequently performed more aggressive responses themselves than did children who heard models verbalize the intention to be aggressive. However, subjects in the Model-verbalization conditions did exhibit more aggression than Controls; in this respect aggression for all subjects was different than sharing behavior for young boys, for whom Model Verbalization produced no sharing.

A third experiment was designed to test whether the difference in efficacy of Model-performance and Model-verbalization conditions in eliciting aggressive behavior was the result of differences in subjects' initial acquisition of specific behaviors (i.e., learning differences) rather than of differences in the tendencies of performance and verbalization to elicit the behaviors. It was hypothesized that subjects who were exposed to a performing model would acquire more and thus recall more of the model's responses than would subjects who were exposed to a verbalizing model. Ten boys and 10 girls were placed in two Experimental conditions: (a) Model Performance—a model performed aggressive behaviors; and (b) Model Verbalization--a model verbalized his intentions to perform the same behaviors. Subjects were then immediately tested for recall of the specific behaviors. Boys in the Model-performance condition recalled more responses than did boys in the Model-verbalization condition, while the recall of girls was unaffected by presentation mode. Thus, only for boys could learning differences have accounted for the differential effectiveness of Model Performance and Model Verbalization as cues for imitative behavior. However, the authors suggested that, for girls, the difference may have occurred because the observation of a same-sex model performing aggressive behavior without incurring harmful consequence was a more effective cue for the disinhibition of socially prohibited aggressive responses than was simply hearing a model's intention to aggress.

In light of this reasoning, the authors stated that their results support the social-cue theory of imitative behavior, which predicts that a subject's response to a model in a given social situation will depend on his reinforcement history for that situation.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—performance; exhortation; nurturance varied

Grusec, J. E., & Skubiski. Model nurturance, demand characteristics of the modeling experiment, and altruism. Journal of Personality and Social Psychology, 1970, 14(4), 352-359.

The study assessed two hypotheses: (a) model nurturance would not increase the imitation of aversive behaviors (i.e., the giving up of winnings) and might even decrease it; and (b) information (verbalization) about expected behavior would have as much effect on a subject as would demonstration of the behavior (performance). The Experimental population was made up of 15 third-grade boys, 15 third-grade girls, 25 fifth-grade boys, and 25 fifth-grade girls. Subjects experienced either (a) High Nurturance (the model played with them) or (b) Low Nurturance (the model did not play with them) before they were placed in one of three Experimental conditions: (c) Performance—subjects watched a model play a bowling game and donate half of the marbles he won to charity; (d) Verbalization—subjects watched a model who said he would donate half of his winnings to charity; and (e) Control—subjects played the bowling game without a model. Results showed that nurturance had no main effect. The sharing of winnings (with charity) was equal for all subjects in the Performance condition and High-nurturance females in the Verbalization condition. The High-nurturance males in the Verbalization conditions and the Control group did not share in significant numbers.

EFFECT AREA(S): Altruism—generosity; sharing behaviors

TREATMENT(S): Modeling

Harris, M. B. Models, norms and sharing. Psychological Reports, 1971, 29, 147-153.

The study sought to assess the mediating forces of modeled altruism upon subjects' altruism. The author predicted that observation of a generous model would elicit generalized altruism, due to the increased salience of the social-responsibility norm. One hundred fifty-six third and fifth graders watched a model play a bowling game in one of the following conditions: (a) model shared his winnings with a mental health charity; (b) model shared his winnings with the subject; (c) model did not share. After observing a model, the subject played the game and had an opportunity to share his winnings with: (d) the model, (e) a mental health charity, (f) a toys-for-tots charity (representing the condition for generalized altruism and presumed to be more attractive than the mental health charity); or (g) to keep his winnings. Experimental findings indicated that imitative responses were both specific to the model's behavior and a generalization of it; while the salience of the social-responsibility norm could explain some results, the imitation of specific behaviors could explain others. As expected, subjects who observed a model share gave more to charity than did subjects who observed a model who did not share. Fifth graders shared more than third graders. While the amount of winnings donated to the toys-for-tots charity was in the predicted direction, it was not statistically significant. Results from a postexperimental questionnaire lent tentative support to the hypothesis that the salience of the social-responsibility norm mediated sharing, although the process by which it did so was not clear. The authors suggested that the reciprocity norm may have affected imitative sharing. (Reviewer's Comment: The results of the study were inconclusive because of several relatively weak findings; the study raised more questions than it answered.)

EFFECT AREA(S): Altruism—sharing behaviors

TREATMENT(S): Modeling—peer model; social reinforcement varied

Hartup, W. W., & Coates, B. Imitation of a peer as a function of reinforcement from the peer group and rewardingness of the model. Child Development, 1967, 38, 1003-1016.

The study hypothesized that imitation of rewarding or nonrewarding peer models is dependent on the subject's prior history of reinforcement from his peers. Fifty-six nursery school children (mean CA 4 years—6 months) were labeled as frequently or infrequently reinforced for behaviors by their peers. The children in the two Reinforcement groups were then randomly assigned to one of three conditions: (a) Rewarding Peer Model—models were classmates who habitually socially reinforced the subject: (b) Nonrewarding Peer Model; and (c) No-model Control. The subjects were asked to reproduce the model's incidental behavior (e.g., picking a certain hat from a group, attaching a feather, putting it on his head, playing a game) and altruistic behavior (i.e., sharing with another child trinkets won in the game). Subjects who observed either model reproduced significantly more altruistic responses than did subjects who had not observed a model. Analysis of results revealed a significant effect of trial blocks, with more altruistic responses during the first trial block than during the second. During the first set of trials, subjects who had been frequently reinforced imitated a Rewarding Peer Model more often than a Nonrewarding Peer Model, while subjects who had been infrequently reinforced imitated a Nonrewarding Peer Model more often than a Rewarding Peer Model. The author suggested a dual theory of peer imitation: imitation of a rewarding model has a greater incentive value than imitation of a nonrewarding model when the subject receives frequent reinforcement; however, when reinforcement is infrequent, a nonrewarding model increases anxiety and is defensively imitated, while a rewarding model decreases this incentive for imitation.

EFFECT AREA(S): Altruism—helping behaviors

TREATMENT(S): Modeling
Role-playing

Holoka-Hegedus, B. Teaching helpfulness: Comparison of the effects of role-playing, modeling, and role-playing plus modeling on the helping behavior of low socioeconomic kindergarten and first grade children. (Doctoral dissertation, Boston University, 1974). (University Microfilms No. 74-20, 436)

The study was concerned with whether role-playing, modeling, and the two combined would have an effect on children's helping behavior in the classroom. It was hypothesized that: (a) children exposed to both these training methods would subsequently show more helping behavior than would children exposed to either modeling or role-playing alone; and (b) children exposed to a single training method would show more helping behavior than would children given no training. One hundred twelve kindergarten and first-grade children whose parents gave permission for them to participate in the study were assigned to the following conditions: (a) Role-playing—subjects viewed slides showing a situation in which help could be given and then acted out their own conclusion to the situation; (b) Modeling—subjects looked at slides of a peer engaged in helping behaviors; (c) Role-playing Plus Modeling—subjects viewed slides of a helping peer and then role-played their own conclusions to the helping situation; and (d) Control—subjects viewed unrelated slides. Helping behaviors, generalized from the training, were measured by the number of subjects who volunteered to help an adult pick up dropped paper clips. Results showed that the Treatment subjects helped significantly more than did the Controls; however, there were no significant differences among the three Treatment conditions.

EFFECT AREA(S): Altruism—helping behaviors

TREATMENT(S): Modeling—letters expressing varied feelings; similarity to subject varied

Hornstein, H. A., Fisch, E., & Holmes, M. Influence of a model's feeling about his behavior and his relevance as a comparison other on observers' helping behavior. Journal of Personality and Social Psychology, 1968, 10, 222-226.

The study was a naturalistic field experiment which examined the effects of modeling on helping behaviors. The authors theorized that a model's experiences are used to predict one's own future experiences; therefore, when a model was dissimilar (nature of dissimilarity unspecified) to a subject, his experiences would not affect the subject's helping behavior. Sixty Manhattan pedestrians of unspecified age (70% male) found an envelope containing a wallet and a letter to the wallet's owner from a "previous finder." The following conditions were varied: (a) Similar Model, Neutral Feelings—the letter indicated the wallet was being returned; (b) Similar Model, Positive Feelings—the letter indicated the finder was happy to return the wallet; (c) Similar Model, Negative Feelings—the letter indicated the finder was annoyed at the inconvenience of returning the wallet; (d) Dissimilar Model, Neutral Feelings—the letter states the finder, a foreign visitor, was returning the wallet; (e) Dissimilar Model, Positive Feelings—the letter stated the finder, a foreign visitor, was happy to return the wallet; (f) Dissimilar Model, Negative Feelings—the letter stated the finder, a foreign visitor, was annoyed at the inconvenience of returning the wallet. Findings showed that 40% of the wallets were returned with their contents intact. Letters with Positive and Neutral Feelings from a Similar Model caused significantly more wallet returns than did Negative-feelings letters from a Similar Model; there were no significant differences between Positive- and Neutral-feelings letters. The three Dissimilar-model conditions did not produce significantly different return rates. Positive- and Neutral-feelings letters produced more returns when they were from Similar than when they were from Dissimilar Models. The authors concluded that the model's negative feelings about helping (when the model was similar to the subject) deterred others from helping behaviors, but there was no evidence that the model's positive feelings produced more helping than did simple observation. They implied that in the Neutral-feelings condition the subject assumed that the model's experience had been pleasant because of no contrary evidence, and therefore the subject imitated the helping behaviors.

EFFECT AREA(S): Altruism—sympathy; helping behaviors
Empathy

TREATMENT(S): Role-playing
Reinforcement—received sympathy varied

Lenrow, P. Studies of sympathy. In S. Tomkins & C. Izard (Eds.), *Affect, cognition, and personality: Empirical studies*. New York: Springer, 1965.

The study sought to develop and test a theory of sympathy. Sympathy was conceptualized as: (a) subjective sensitivity to a person's distress, and (b) the disposition to provide a helping response to a distressed person. In the first experiment it was hypothesized that: (a) subjects who were induced by means of role-playing to become affectively involved in dependency roles with partners accepting of dependency would show greater increase in sympathetic response to others' distress than would subjects who simply discussed the same stimulus content impersonally with accepting partners; and (b) subjects with accepting partners would show greater increase in sympathetic response than would subjects with rejecting partners. Sixty-seven men and women from a graduate class in personality were placed in four Experimental conditions: (a) High Affective Involvement (via role-playing) in the dependency situation, Accepting Attitude to their dependency from a confederate; (b) High Affective Involvement, Rejecting Attitude; (c) Low Affective Involvement, Accepting Attitude; and (d) Low Affective Involvement, Rejecting Attitude. Degree of involvement by itself was not found to affect sympathy, but subjects who received Accepting Attitudes gave significantly more sympathetic responses to a questionnaire (unrelated to the experimental stimulus content) than did subjects who received Rejecting Attitudes, and involvement and support together resulted in significantly more sympathy responses than did any other condition. The author believed his results support the theory that increases in subjective sympathy are a function of the subject's past affective involvement in sympathy-producing roles and situations and his past support from others for such involvement.

In order to determine whether the increases in sympathy were the result of modeling and demand characteristics of the situation rather than of an empathic process involving subjective feelings of sympathy, the author performed a second study to test the relation between subjective sympathy and helpful actions and the conditions which support each. It was hypothesized that: (a) helpful action would be positively related to a disposition to cope actively with barriers in one's path; (b) supportive affective response (subjective sympathy) would be positively related to a disposition to express distress overtly; and (c) helpful action would be most likely to be expressed by individuals who both cope actively and express distress overtly. Twenty boys and 13 girls aged 3 years–5 months to 5 years–11months were exposed to a puppet-show situation in which the hero was in need of the subject's help. Both helpful actions and verbal responses indicating subjective sympathy were measured. Subjects' tendency to cope actively versus passively and to express distress overtly were determined by teacher ratings of their school behavior. Children who coped actively in nursery school showed significantly more helping behaviors toward the puppet than did children who coped passively; children who expressed distress overtly gave significantly more supportive verbal responses to the puppet; and children who coped actively *and* expressed distress overtly showed the highest frequency of helping behaviors. Verbal behavior was not related to coping behavior. The author suggested that helping behavior and perhaps "sympathy" (helping behavior combined with empathic feelings) are more likely to occur in children who have learned to cope actively in stressful situations and have been taught to express distress overtly. (Reviewers Comment: Whether verbal expression corresponds with empathic response, however, is open to question: some children, as the author indicated, may feel "sympathy" without expressing it.)

EFFECT AREA(S): Altruism–generosity

TREATMENT(S): Modeling

Liebert, R., & Fernandez, L. *Effects of single and multiple modeling cues on establishing norms for sharing.* Paper presented at a meeting of the American Psychological Association, Miami, September 1970.

The study attempted to discover whether a model's altruistic behavior actually increases, through imitative learning, subjects' general tendency to share (a true modeling effect) or whether modeling serves merely to instigate subjects' adherence to an already acquired "norm of giving." The author theorized that if modeling produces learning, subjects would match the precise amount of a model's donation, whereas if modeling facilitates adherence to a norm, the size of subjects' donations would be unrelated to the size of a model's donation. It was also hypothesized that observation of the identical actions of two models would produce more matching of the models' behavior than would observation of a single model. Seventy boys (mean CA 4.8 years) were assigned to one of six Experimental conditions or a Control group. The Experimental conditions varied three modeling conditions: (a) One Model; (b) Two Models Together–the second model performed after observing the first; and (c) Two Models Independently–the second model did not observe the first. There were also two conditions of model's donation: (d) Highly Generous, and (e) Moderately Generous. Thus the experimental design was a 3 x 2 factorial plus a Control. The models were adult females. After being given an opportunity to earn six tokens in a simple experimental task, subjects observed a model(s) donate either three (Moderately Generous condition) or five (Highly Generous condition) tokens to charity. Controls observed no model. Subjects were then given an opportunity to donate their tokens. Subjects who observed altruistic models donated significantly more than did Controls. Sharing did not differ across modeling conditions, but subjects precisely matched the donations of two models (Together and

Independently conditions combined) significantly more often than they matched the donations of one model. The authors concluded that a true modeling effect is more likely to occur when multiple rather than single modeling cues are present.

EFFECT AREA(S): Altruism--generosity

TREATMENT(S): Modeling—surveillance and justification for sharing varied

Liebert, R., & Poulos, R. Eliciting the "norm of giving": Effects of modeling and presence of witness on children's sharing behavior. Proceedings of the 79th Annual Convention of the American Psychological Association, 1971, 345-346.

The study tested implications of the theory that children make reference to a previously acquired "norm of sharing" in performing altruistic behavior. It was hypothesized that: (a) the presence of a witness (surveillance) and observation of a sharing model would each increase children's sharing behavior; (b) both of these social cues together would result in the greatest amount of sharing; (c) when a model's stated reason for sharing was to obtain social approval, modeling would be most effective in producing sharing in the presence of a witness; and (d) when the model's stated reason was an internal or altruistic motive, modeling would be most effective in the absence of a witness. Eighty second- and third-grade girls (exact age not given) were divided among the 8 cells of a 2 x 4 factorial design which varied two Surveillance conditions: (a) Presence and (b) Absence; and four Modeling conditions: (c) No-modeling Control; (d) Modeling, No Justification; (e) Modeling, Internal Justification; and (f) Modeling, External Justification. The models were adult females. Subjects were given the opportunity to earn tokens in an experimental taskand then, in he Modeling conditions, subjects observed a model donate four of her eight tokens to charity. In the External-justification condition the model stated that she was donating because "people will like me if I do"; in the Internal-justification condition the model's reason was "to make the children happy." Children were given an opportunity to share while the experimenter either watched or did not watch. Children exposed to a sharing model shared significantly more than did Controls, and children shared significantly more when the witness was present than when she was absent. As predicted, children exposed to both a sharing model and a witness shared significantly more than did children exposed to either of these social influences alone. The model's verbalization of a reason for sharing had no effect on subjects' altruism. The authors concluded that their results supported the theory that children share in the presence of social cues which tell them that adhering to a norm of sharing is situationally appropriate or desirable.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Reinforcement

Midlarsky, E., & Bryan, J. Training charity in children. Journal of Personality and Social Psychology, 1967, 5(4) 408-415.

The study tried to demonstrate that sharing responses (charity) could be conditioned. It was hypothesized that subjects who had received a certain cue-combination contingent upon giving up a reward would be more likely to perform a second charitable act (donating coins to a charitable cause) if the cues were reinstated than would subjects who had had no charity conditioning or for whom no cues were reinstated. One hundred sixty girls in grades 1 to 4 were placed in one of five conditions: (a) positively reinforcing cues of affective arousal in the child were paired with expressions of joy in the experimenter when the child gave up a reward; (b) the same cues were paired in reverse order; (c) affective arousal was the only cue; (d) the experimenter's expressions of joy were the only cue; and (e) no cues were paired with giving up a reward. Subjects who received either combination of two cues, and for whom joy-cues were reinstated for the second task, performed significantly more charitable responses on the second task than did either subjects for whom no cues were reinstated or subjects who had been given one or no cues in the first task. The authors suggested that "charitable behavior" can be learned and transferred to other situations that may call for new types of sharing responses, but they were unable to determine whether direct reinforcement or modeling was responsible for their results. (Reviewer's Comment: What actually occurred in the study, however, was that "giving up one reward for another reward" on the first task resulted in more frequent donating behavior on the second task.)

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—action, exhortation, and timing of expression of affect varied

Midlarsky, E., & Bryan, J. Affect expressions and children's imitative altruism. Journal of Experimental Research in Personality, 1972, 6, 195-203.

The study tested several aspects of Aronfreed's theory that subjects learn altruistic behavior through vicarious experience of the affect which a model experiences when the model is reinforced. It was hypothesized that: (a) altruism would be more readily imitated when the affect experienced by the model was contiguous (paired in time) to the model's donating response; (b) rationalized exhortation (exhortation which gave a reason for its advice) recommending altruistic responding would produce more altruistic behavior than would exhortation recommending selfish behavior; and (c) scores on the Social Desirability Scale (Crandall, Crandall, & Patkovsky, 1965), the

Social Responsibility Scale (Harris, 1957), and the *Trust Scale* (Hochreich, 1966) would be positively correlated with subjects' tendency to acquire altruistic responses. Sixty-four boys and 64 girls in the fourth and fifth grades (exact age not specified) were divided among the cells of a 2 x 2 x 2 factorial design which included two Modeling conditions—(a) Charitable Model and (b) Greedy Model; two Exhortation conditions—(c) Charitable and (d) Greedy; and two Positive-affect conditions—(e) Positive Affect (expressed by the model) Contiguous to the model's act, and (f) Positive Affect Noncontiguous to the model's act. Subjects were given the opportunity to donate their winnings from a game to charity after viewing a model. In the Contiguous-positive-affect condition the model expressed pleasure immediately *after* donating or keeping his winnings; in the Noncontiguous-positive-affect condition the model expressed affect *before* he received his reward. One and one-half weeks later, subjects were given a second opportunity to donate in the absence of models. On Task 1, subjects exposed to Charitable Models donated significantly more than did subjects exposed to Greedy Models, and subjects in the Contiguous-affect conditions were influenced significantly more by their models than were subjects in the Noncontiguous-affect conditions. Exhortation had a significantly greater effect on fifth than on fourth graders: fifth graders donated significantly more when exhorted to be generous and significantly less when exhorted to be greedy than did fourth graders. Girls were significantly more altruistic than boys on Task 1. On Task 2, the model's actions and exhortations had a significant effect on altruism but gender did not, and the interaction between affect (Contiguous or Noncontiguous) and model's action was in the predicted direction but not significant. Scores on the *Social Responsibility Scale* were significantly positively related to donations on both tasks, and scores on the *Trust Scale* to donation on Task 1. The authors concluded that exposure to an altruistic model can influence subjects' future donating behavior in a different context, that rationalized exhortations affect altruism, and that their results supported the theory that imitative learning is facilitated by vicarious reinforcement.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—social approval varied

Midlarsky, E., Bryan, J. H., & Brickman, P., Aversive approval: Interactive effects of modeling and reinforcement on altruistic behavior. *Child Development*, 1973, *44*, 321-328.

The study explored the idea that the reinforcement by a model of a behavior (altruism) that is inconsistent with a model's prior behavior will be aversive rather than rewarding and will therefore decrease the reinforced behavior. The authors hypothesized that: (a) a generous model would be more successful in reinforcing donation behavior than would a selfish model because (1) a generous model would be better liked and more highly valued by the subject, (2) a generous model's advocacy and reinforcement of donation behavior by the subject would be consistent rather than inconsistent with his own behavior; and (b) the attempt by the selfish model to reinforce altruism would decrease donation behavior according to the cognitive-consistency theory of socialization. Two experiments were used to test the hypotheses.

In Experiment I, 72 sixth-grade girls played a programmed pinball game, with the following conditions of modeling and social approval varied in a factorial design: (a) Generous Model—model gave her winnings to charity; (b) Neutral Model—model did not collect her winnings; (c) Selfish Model—model kept her winnings; (d) Social Approval—the subject received praise from the model after each donation; and (e) No Approval. The model played 10 trials of the game and then exhorted the subject, before she began playing and again after each winning game trial, to give her winnings to charity. Results showed that donations were almost equally enhanced by the social approval of the Generous and Neutral Models, and donations were depressed by reinforcement from the Selfish Model. Findings from a postexperimental questionnaire indicated that most children recognized the critical experimental manipulations and that subjects generally held the model in high esteem no matter which condition they were in.

Experiment II, designed to replicate and expand the first experiment by varying age, SES, sex, and measurement of donations, assigned 90 third graders to the same Experimental conditions previously used in Experiment I and measured the frequency of their donation of winnings from a bowling game. Social Approval was given, unlike Experiment I, only after the subjects' first donation, and the model only exhorted the subject to give before he began playing. Results showed that Social Approval did not significantly affect the donations of subjects viewing the Generous Model, significantly increased donations of those viewing a Neutral Model, and resulted in no absolute increase in donations and a relative decrease on successive trials for subjects viewing a Selfish Model when compared with Control groups. As predicted, the differences in donation behavior elicited by different models was greater in later trials than in earlier ones. Questionnaire data did not show that the subjects disliked the hypocritical model (Selfish-model condition).

The authors implied that an adult's inconsistency might make him unable to positively influence a child in the domain of moral behavior or to undermine his social reinforcement.

EFFECT AREA(S): Altruism—sharing behaviors; helping behaviors

TREATMENT(S): Reinforcement—punishment

Morris, W. N., & Marshall, H. M. The effect of vicarious punishment on prosocial behavior in children. Journal of Experimental Child Psychology, 1973, 15, 222-236.

Two experiments were performed to explore the effects of vicarious punishment on prosocial behaviors.

In the first experiment it was hypothesized that: (a) vicarious punishment for the failure to share would increase sharing behavior; and (b) directional differences from the baseline (more or less sharing) would be greater when the experimenter and the socializing agent were the same person than when they were different persons. One hundred twelve first- and second-grade girls (mean CA 7 years—5 months) were assigned to the following conditions: (a) Nonsharing Punished Model—a filmed peer model refused to share candy and was verbally punished; (b) Baseline—no sharing or punishment; (c) Nonsharing, No Outcome—the model refused to share candy in the film without consequence to her; and (d) Model Punished—there was no opportunity for sharing behavior in the film, and the model was punished. Half the subjects saw: (e) a socializing agent (person who administered the punishment) who was the experimenter, and half saw (f) a socializing agent who was *not* the experimenter. Results showed children in the Nonsharing-punished-model and Model-punished conditions shared significantly more than did subjects in the Baseline condition. The main effects and the interaction effects of the socializing agent did not approach significance. Second graders shared significantly more than did first graders in all conditions except Baseline.

Because the Model-punished and Nonsharing-punished-model conditions both produced sharing in Experiment 1, Experiment 2 sought to differentiate between generalized and specific inhibitions produced by punishment. It was hypothesized that subjects who saw a Model Punished would increase their helping behavior (other than sharing, i.e., helping the experimenter), while subjects who saw a Nonsharing Punished Model would not increase their helping behavior. Seventy-eight first-, second-, and third-grade girls (mean CA 8 years) were exposed to one of the three filmed Modeling conditions in Experiment 1 (a, b, d). Only one punishment agent was used. After viewing the model, the subjects were asked to help the experimenter on a task. Results showed that subjects in the Model-punished condition helped significantly more often than did subjects in the Baseline and Nonsharing-punished-model conditions; the latter two conditions did not significantly differ from one another. First graders helped significantly less than second or third graders.

The authors concluded that viewing noncontingent punishment to a model results in a general inhibition against antisocial behavior (e.g., not sharing or not helping), and viewing of contingent punishment affects only specific behaviors (e.g., not sharing candy).

EFFECT AREA(S): Altruism—helping behaviors

TREATMENT(S): Reinforcement—agent's attractiveness

Moss, M., & Page, R. Reinforcement and helping behavior. Journal of Applied Social Psychology, 1972, 2(4), 360-371.

The study examined the influence of prior reinforcement of altruism upon current performance of that behavior. It was hypothesized that: (a) positive consequences of altruism would increase and negative consequences decrease subsequent altruistic behavior; and (b) the greatest amount of helping behavior would occur when reinforcement was dispensed by an attractive other. One hundred twenty males and females aged 18 to 60 years were approached individually by an 18-year-old female confederate (who asked directions to a nearby store) on the main street of Dayton, Ohio. The confederate was made to appear either: (a) Attractive—a short dress, flattering makeup, etc., or (b) Unattractive—frumpy dress, flats, and homemade purse. After the subject had given the confederate directions to the store, the confederate either: (c) smiled and thanked the subject politely (Positive Reinforcement), (d) said "O.K." and left (Neutral Reinforcement), or (e) broke away in the middle of the subject's directions, claiming impatiently that she couldn't understand them (Negative Reinforcement). The design was thus a 3 x 2 x 2 factorial varying reinforcement, confederate attractiveness, and sex of the subject. As the subject walked on, a second confederate appeared to drop her handbag without noticing. The dependent variable was the subjects' reaction to the woman who "lost" her purse. A Control group of 20 subjects who had no opportunity for prior helping was also exposed to the second confederate. Subjects who received either Positive or Neutral Reinforcement for helping the first time helped significantly more often the second time than did Controls or subjects who received Negative Reinforcement. In the Neutral-reinforcement condition men gave significantly more physical help than did women, who gave significantly more verbal help than did men. Relatively more physical help was given following an encounter with the Attractive confederate; relatively more verbal help was given after an encounter with the Unattractive confederate. Following Negative Reinforcement, men helped significantly more than did women; the authors suggested this was a reflection of the well-reinforced male response of chivalry. The authors further suggested that parents and teachers can inculcate altruistic behavior through reinforcement.

EFFECT AREA(S): Altruism—sharing behavior

TREATMENT(S): Modeling—exhortation varied
Attitudinal/Affective Manipulation—surveillance

Poulos, R., & Liebert, R. Influence of modeling, exhortative verbalization, and surveillance on children's sharing. Developmental Psychology, 1972, 6(3), 402-408.

The study examined the idea that children's sharing behavior is a function of the degree to which stimulus cues in a particular setting imply that such behavior is appropriate, desirable, or expected. The hypotheses were: (a) modeling, exhortative verbalization, and surveillance would each act as cues to elicit sharing; and (b) modeling and verbalization would be more effective cues with surveillance than without. Ninety-five second- and third-grade girls were given the opportunity to earn tokens and then placed in one of the following conditions (which examined the hypotheses within the framework of a 2 [Modeling] x 2 [Verbalization] x 2 [Surveillance] factorial design): (a) Modeling (M), Verbalization (V), and Surveillance (S) were all present; (b) M, V, no S; (c) M, no V, S; (d) M, no V, no S; (e) no M, V, S; (f) no M, V, no S; (g) no M, no V, S; (h) Control—no M, no V, no S. Eighty of the subjects were then given an opportunity to share their tokens, while 15 were asked several questions before being given the opportunity to share. Observing a model who shared her token and observing a model being exhorted verbally to share were both individually effective in significantly increasing sharing, whereas Surveillance alone was ineffective and had no effect on Modeling, although it significantly augmented the effect of Verbalization. Responses to the questions revealed that children generally understood the procedure and their options and did not feel "forced" to comply. The author suggested that the social cues of modeling and verbalization were redundant in character and/or quantity and that, for culturally sanctioned behavior such as sharing, obedience to verbal rules under surveillance places a greater demand on children to perform the behavior than does the example of an adult model.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—generous model; stingy model; reinforcement varied

Presbie, R. J., & Coiteux, P. F. Learning to be generous or stingy: Imitation of sharing behavior as a function of model generosity and vicarious reinforcement. Child Development, 1971, 42, 1033-1038.

The study investigated the effects of a stingy or generous model and vicarious reinforcement on sharing behavior. It was hypothesized that: (a) children exposed to a generous model who either praised himself or was praised by the experimenter would share more than would children who did not observe praise; (b) children exposed to a stingy model would share less under similar conditions; and (c) the interactions of praise and generosity would cancel out the main effects of praise, so that there would be no significant differences between (1) subjects who had or had not heard the self-praise of the model, and (2) subjects who had or had not heard the experimenter's praise. Sixty-four first-grade subjects were randomly assigned to groups which viewed either: (a) a Generous Model (model shared 9 of 12 marbles in each of 5 trials), or (b) a Stingy Model (model shared 3 of 12 marbles in each of 12 trials). The groups were subdivided, and the following conditions varied: subjects either (a) heard the model praise himself for his behavior, (b) heard no self-praise, (c) heard the experimenter praise the model, or (d) heard no experimenter-praise. Subjects who viewed the Generous Model shared more than did those who observed the Stingy Model. There was a significant interaction between generosity of model x self-praise x experimenter-praise, indicating that vicarious reinforcement affected sharing, but only when praise was delivered by the model or experimenter alone. The author seemed to imply that the removal of vicarious reinforcement from situations in which unacceptable behavior was modeled might decrease the imitation of that behavior.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—prior relationship with subject varied

Rosenhan, D., & White, G. M. Observation and rehearsal as determinants of prosocial behavior. Journal of Personality and Social Psychology, 1967, 5(4), 424-431.

The study explored the conditions under which an internalized norm of altruism is acquired. It was hypothesized that: (a) norms for altruism would be acquired through observation; and (b) a prior positive relationship with a model would elicit more altruism than would a prior negative relationship. One hundred thirty fourth- and fifth-grade subjects were assigned to conditions in which they: (a) received Positive Reinforcement from a model (the model agreed with and praised the subject); (b) received Negative Reinforcement from a model (the model disagreed with and criticized the subject); or (c) No-model Control. Subjects then were divided between the Control and Treatment groups; in the Treatment groups subjects alternated turns in playing a bowling game with a model who donated half of his winnings to charity. The subject played the game again after the model left. Results, measuring altruism both in the model's presence and in his absence, indicated that subjects who observed a model donated more than did subjects who had not observed a model. Sixty-three percent of the subjects gave in the model's presence (conforming behavior), and 48% gave after the model had left (internalization of norms). Generally, the same subjects who gave in the model's presence also gave in his absence. Subjects in the No-model Control group did not donate. The authors concluded that both observation and rehearsal of a model's behavior are necessary to elicit altruism. While generally the prior Positive or Negative Reinforcement from the model did not affect altruism, some evidence suggested that girls who had been positively reinforced gave more in the model's presence and less in his absence than did girls who had been negatively reinforced. The authors concluded that the latter result might imply that girls are more sensitive to social norms than boys.

EFFECT AREA(S): Altruism—helping behaviors; sharing behaviors

TREATMENT(S): Role-playing
Direct Training—induction

Staub, E. The use of role-playing and induction in children's learning of helping and sharing behavior. Child Development, 1971, 42(3), 805-816.

The experiment attempted to use role-playing and induction (as described below) to increase a child's disposition to help someone in distress. Seventy-five kindergarten children were assigned one of the following Treatment conditions: (a) Role-playing—two subjects enacted a situation in which one subject gave help, while another received it; (b) Induction—the experimenter described the helping situation and the positive consequences of help to the receiver; (c) Role-playing with Induction; and (d) Control—subjects role-played a situation unrelated to helping. The treatments resulted in several complex effects. After the Role-playing treatment, girls helped a distressed child more often than did girls in the Control group; and boys shared more candy than boys in the Control group, which was viewed as a generalization of the treatment. Both effects persisted for 1 week. Neither Induction nor Induction with Role-playing had much effect on the subjects' disposition to help a peer in distress or to share with a peer; however, Induction decreased the amount of help given to an adult experimenter on a task. The latter result may be partially accounted for by a tendency to oppose adult authority.

EFFECT AREA(S): Altruism—helping behaviors

TREATMENT(S): Modeling—altruistic model; negative model

Test, M. A., & Bryan, J. H. The effects of dependency, models, and reciprocity upon subsequent helping behavior. The Journal of Social Psychology, 1969, 78, 205-212.

The authors, maintaining that previous research had not established whether helping behavior was elicited by modeling or by the subject's desire to reciprocate to a model who had helped him, hypothesized that: (a) modeling would be most effective when the model helped the subject (reciprocity principle); (b) subjects who had observed a helping model would help more than would subjects who had observed a negative model or no model; (c) subjects would help less after viewing a negative model than after viewing no model; and (d) on the basis of the social-responsibility norm, a highly dependent other would elicit more help than would one who was not dependent. Eighty female college students performed an individual arithmetical task along with a model (Confederate I) and another person, (Confederate II). The tasks were constructed so that Confederate I (the model) would finish first, the subject second, and Confederate II last. The subjects were randomly assigned to perform the task in one of eight Experimental groups of a 2 x 4 factorial design which varied dependency and type of model as follows: (a) High Dependency—Confederate II simulated a broken arm; (b) Low Dependency—Confederate II had no debility; (c) Modeling with Reciprocity—the model offered to help the subject after finishing her own task; (d) Modeling without Reciprocity—the model finished her task and offered to help Confederate II; (e) No Model—Confederate I finished her task and left the room; and (f) Negative Model—the model announced that she had finished her task and left the room without helping anyone. After finishing her own task the subject had the opportunity to help Confederate II for a period of 2 minutes, after which Confederate II was called from the room, leaving the subject alone to work on the task. Results showed a significant main effect for Modeling but not for Dependency. Subjects in both the Modeling-with-reciprocity and Modeling-without-reciprocity conditions helped significantly more than did subjects in the No-model or Negative-model conditions; there were no differences between (c) and (d) and between (e) and (f). The findings supported hypothesis (a) but not hypotheses (b), (c), and (d). Results implied that there was no effect of Reciprocity beyond that of Modeling. The lack of significant results from the Dependency conditions and lack of different effects from the No-model and Negative-model conditions were explained by unsuccessful experimental manipulations. The author noted that while salience of reciprocity varies in different cultures, it did not seem to be a factor for altruism with the present Experimental population.

EFFECT AREA(S): Altruism—helping behaviors

TREATMENT(S): Reinforcement

Tipton, R., & Browning, S. Altruism: Reward or punishment. Journal of Psychology, 1972, 80, 319-322.

The purpose of the study was to determine the differential effects of reward and punishment for an altruistic act on the subsequent performance of a second altruistic act of a different type. No hypothesis was offered. A real-life situation was employed in which the voluntary performance of an altruistic act was either punished or rewarded. Of 30 Experimental subjects of varying age who performed the act, 15 were randomly rewarded and 15 were punished; 30 Control subjects were given the opportunity to perform only the second act. Given the opportunity to perform a second altruistic act, none of the Experimental subjects did so, although 11 of the Control subjects did so. There was no control for the possibility of subject differences in perception of the "act" situations. The authors suggested that performance of two (somewhat laborious) altruistic acts would have placed too great a demand on the subjects, regardless of the first act's rewarding effects.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—model characteristics, amount donated and recipient's need varied

Wagner, C., & Wheeler, L. Model, need, and cost effects in helping behavior. Journal of Personality and Social Psychology, 1969, 12(2), 111-116.

The study hypothesized that: (a) a generous model would encourage more charitable behavior than would a selfish model; (b) more charitable behavior would occur when the recipient's need was high than when it was low; and (c) subjects would donate more when the cost to themselves was small than when it was great. One hundred forty-four Naval enlisted men (average age not specified) were divided among 12 Experimental conditions in which three types of model (Generous, Selfish, Control), two types of need, (High, Low) and two types of cost (High, Low) were varied in a factorial design. In the High-need condition the donation was to be for the traveling expenses of the relatives of a dying serviceman, while in the Low-need condition the donation was for a local servicemen's fund. The Generous Model donated $20, the Selfish Model refused twice to donate anything, and in the Control condition the subject left before the model made his decision. In the High-cost (to subject) condition all the money had to be given immediately, while in the Low-cost condition the donation could be paid in installments. Subjects donated significantly more money when they heard the Generous Model, and significantly less when they heard the Selfish Model, than when they observed no model (Control condition); they also donated significantly more under the High- than under the Low-cost condition. Need had little effect on donating, but further analysis suggested that the donor's perception of true need determined how much he gave and that need may be "validated" by a generous model and "invalidated" by a selfish one. The authors concluded that a subject will donate more when he sees another donating generously to a cause which the subject deems worthy.

EFFECT AREA(S): Altruism—generosity

TREATMENT(S): Modeling—rehearsal conditions varied

White, G. M. The elicitation and durability of altruistic behavior in children. Unpublished doctoral dissertation, Princeton University, 1967.

The study examined the effects of observation and rehearsal of a model's behavior on donating behavior in children. The author predicted that: (a) subjects who saw a model perform an altruistic act and then rehearsed it in the model's presence would subsequently be more altruistic than subjects who observed a model but did not have a chance to rehearse the altruistic behavior in the model's presence; (b) subjects who observed a model donate would contribute more than would no-model Control subjects; (c) subjects who were told to rehearse donation behavior in the model's presence would donate less than would subjects whose rehearsal was voluntary, because the former would conform to situational demands rather than internal norms; and (d) after several days, while an overall decline in altruism would be expected, subjects who were told to rehearse donation behavior would show the greatest decrease in altruism. Two hundred ten fourth and fifth graders played a bowling game in which they won gift certificates that they could either keep for themselves or donate to charity. The following Experimental conditions were varied: (a) Enforced Rehearsal—the subject was told to donate one of every two certificates; the subject played the game in the experimenter's presence, winning twice; if the subject failed to donate, he was reminded to do so; (b) Observation Plus Voluntary Rehearsal—the subject watched the experimenter contribute some of his winnings from the game to charity; the subject played the game and had two opportunities to donate while in the experimenter's presence; (c) Observation—the subject watched the experimenter donate some of his winnings; and (d) Control—the subject was given instructions on how to play the game and was informed (without instructions) about the opportunity to donate to charity. Half of the subjects from each condition played the game again immediately as well as a few days later, and half played it only a few days later. Results showed significantly differential amounts of altruism across the Experimental conditions. Contrary to prediction, the greatest amount of donation occurred in the Enforced-rehearsal group, followed, in order, by the conditions of Observation Plus Voluntary Rehearsal, Observation, and Control. After a few days subjects in the Enforced-rehearsal condition contributed significantly less than they had, but their level of giving remained higher than the level of all other subjects except that of girls in the Observation-plus-voluntary-rehearsal condition. The author implied that, contrary to the suggestions of many other researchers, modeling alone is not sufficient to elicit altruism because subjects in the Observation condition gave no more than did those in the Control condition.

EFFECT AREA(S): Altruism–helping behaviors

TREATMENT(S): Modeling--modeling form and nurturance varied
Direct Training

Yarrow, M. R., Scott, P. M., & Waxler, C. Z. Learning concern for others. Developmental Psychology, 1973, 8(2), 240-260.

The study investigated the effects of two types of training for the sympathetic helping behavior of children. After being tested for baseline levels of helping behavior, 104 middle-class nursery school children (CA 3.5–5.5 years) participated in five play sessions during a 2-week period with either: (a) Nurturant Adult or (b) Nonnurturant Adult. The children were then assigned to two Training groups (A and B) and a Control group. In Training Group A a model exhibited sympathic helping behaviors to people or animals in distress through the medium of a diorama which contained miniature models with toy actors. The following elements of sympathetic behavior were modeled in each of six dioramas: (a) awareness of the distress, (b) sympathy and help for the victim, (c) pleasure or relief when help was given, (d) use of the word "help" to summarize what was done. In Training Group B three separate media were used to model helping behaviors: dioramas, pictures, and behavioral incidents. The four elements of helping behavior, as defined above, were used in each. Students were tested for training effects after 2 days with dioramas, pictures, and behavioral incidents; after 2 weeks with behavioral incidents; and after 6 months with dioramas. Results of the posttest 2 weeks later showed significant effects on helping behavior for training with dioramas, regardless of the Nurturance condition, when the subjects were tested in the same medium. Group A subjects showed no transfer of learning to pictured distresses. Results of the 2-day posttest showed little helping on behavioral incidents; however, Group B subjects in the Nurturant-adult condition gave significant numbers of helping responses on the 2-week posttest. A recognizable trend for positive training effects was demonstrated after 6 months. A second experiment using lower-class subjects, a Nurturant Caretaker, and Group B Training replicated these results. The authors, using training conditions representative of child-rearing patterns, related experimental findings to the socialization of children. They implied that generalized altruism is best learned from warm nurturant parents who both teach principles of altruism and practice them in everyday life.

Citations of Abstracts Dealing with Altruism Which Appear in Full under Another Effect Area

DePalma, D. Effects of social class, moral orientation, and severity of punishment on boys' moral responses to transgression and generosity. *Developmental Psychology*, 1974, *10*(6), 890-900. (p. 111)

Hapkiewicz, W. G., & Stone, R. D. The effect of realistic versus imaginary aggressive models on children's interpersonal play. *Child Study Journal*, 1974, *4*(2), 47-57. (p. 11)

Citations of Studies Related to Altruism without True Training Effects

Aderman, D. Elation, depression, and helping behavior. *Journal of Personality and Social Psychology*, 1972, *24*(1), 91-101.
Manipulation—mood induction

Berkowitz, L., & Daniels, L. R. Responsibility and dependency. *Journal of Abnormal and Social Psychology*, 1963, *66*, 429-436.
Manipulation—recipient's dependency on and awareness of help

Berkowitz, L., & Daniels, L. R. Affecting the salience of the social responsibility norm: Effects of past help on the response to dependency relationships. *Journal of Abnormal and Social Psychology*, 1968, *68*, 302-306.
Manipulation—prior help; recipient's dependency

Cox, N. Prior help, ego development, and helping behavior. *Child Development*, 1974, *45*, 594-603.
Manipulation—prior help

Fouts, G. Charity in children: The influence of "charity" stimuli and an audience. *Journal of Experimental Child Psychology*, 1972, *13*, 303-309.
Manipulation—relevant/neutral stimulus cues; surveillance

Greenberg, M., Block, M., & Silverman, M. Determinants of helping behavior: Person's rewards versus other's costs. *Journal of Personality*, 1971, *39*(1), 79-93.
Manipulation—recipient characteristics

Greenglass, E. Effects of prior help and hindrance on willingness to help another: Reciprocity or social responsibility. *Journal of Personality and Social Psychology*, 1969, *11*, 224-231.
Manipulation—prior help

Horowitz, I. Effect of choice and locus of dependence on helping behavior. *Journal of Personality and Social Psychology*, 1968, *8*, 373-376.
Manipulation—freedom of decision.

Isen, A. Success, failure, attention, and reaction to others: The warm glow of success. *Journal of Personality and Social Psychology*, 1970, *15*, 294-301.
Manipulation—induced success or failure.

Lanzetta, J. T., & Wilke, H. The obligation to help: The effect of levels of prior help on subsequent helping behavior. *European Journal of Social Psychology*, 1971, *1*(1), 97-106.
Manipulation—prior help

Long, G., & Lerner, M. Deserving, the "personal contract," and altruistic behavior in children. *Journal of Personality and Social Psychology*, 1974, *29*(4), 551-556.
Manipulation—effect of surveillance and justice to oneself

Masor, H., Hornstein, H., & Tobin, T. Modeling, motivational interdependence, and helping. *Journal of Personality and Social Psychology*, 1973, *28*(2), 236-248.
Manipulation—group behavioral set (cooperation/competition) and model's act

Nemith, M. The effect of differential outcome discrepancies and peer norms on altruism in boys. *Dissertation Abstracts International*, 1974, *35*(2), 1027-B.
Manipulation—mutual success outcome and normative information varied

Staub, E. Children's sharing behavior: Success and failure, the "norm of deserving" and a reciprocity in sharing. An extended version of a paper presented at a symposium entitled *Helping and Sharing: Concepts of altruism and cooperation.* Society for Research in Child Development, Philadelphia, Pa., March 1973.
Manipulation—success-failure; deserving; reciprocity

Willis, J. A., & Goethals, G. R. Social responsibility and threat to behavioral freedom as determinants of altruistic behavior. *Journal of Personality*, 1973, *41*(3), 376-384.
Manipulation—social pressure

ATTITUDES

DEFINITION: Attitudes—Patterned tendencies of emotional and/or behavioral response related to a general class of objects or situations; learned dispositions of favorable or unfavorable responses to a class of objects or situations. (Because the attitude literature is vast, this document includes only studies which deal with attitudes of "moral-ethical" content—mainly attitudes toward social issues and groups of people.)

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EFFECT AREA(S): Attitudes—segregation

TREATMENT(S): Attitudinal/Affective Manipulation—instrumentality for achieving value satisfaction manipulated

Carlson, E. Attitude change through modification of attitude structure. Journal of Abnormal and Social Psychology, 1956, 52, 256-261.

The study tested the idea that if an attitude is related to a personal value, change of that attitude will be a matter of changing its instrumentality in achieving satisfaction of the value. The hypotheses were that: (a) change in attitude toward segregation would be positively related to change in that attitude's instrumentality in satisfying certain broad personal and social values; and (b) attitude change would generalize to similar attitudes. Of the 183 college students employed as subjects, 126 were given the following Experimental procedures: (a) measures of attitudes on a core issue (segregation) and five related issues were obtained; (b) measures of values and the instrumentality of the measured attitudes in satisfying these values were obtained; and (c) communication designed to increase the instrumentality of segregation attitudes in satisfying the values was introduced. Fifty-eight subjects received part (a) and either part (b) or part (c) of the procedure. For subjects with moderate attitudes, attitude change was significantly related to change in instrumentality of the attitude in satisfying personal and social values. For subjects with extreme attitudes, the change procedure was ineffective. A moderate amount of attitude generalization occurred.

EFFECT AREA(S): Attitudes—empathy for disabled people

TREATMENT(S): Role-playing

Clore, G. L., & Jeffery, K. M. Emotional role playing, attitude change, and attraction toward a disabled person. Journal of Social Psychology, 1972, 23(1), 105-111.

The authors explored the assertion of theorists (e.g., Sabin, 1964) that role-playing can cause attitude and behavior change. It was hypothesized that: (a) The experience of role-playing a disabled person would positively affect the subject's attitude towards a specific disabled individual (the experimenter) as well as his attitude towards general issues involving the disabled; and (b) the attitudes of an observer (vicarious role-player) would also be affected by the experience. Seventy-six college students were assigned to the following conditions: (a) Role-playing—subjects pretended to be an accident victim in a wheel chair as they took a 25-minute trip around the campus; (b) Vicarious Role-playing—subjects walked behind the person in the wheelchair and observed what happened to him; and (c) Control—subjects simply walked around the campus. Results confirmed both hypotheses. A disguised attitudinal measure (a telephone survey concerning increased spending on facilities for the disabled) after 4 months also showed that subjects in Conditions (a) and (b) reacted more favorably to the disabled than did Control subjects. The authors suggested that increased empathy in the two Treatment conditions accounted for the results. They implied that varied role-taking experiences increase tolerance and social maturity.

EFFECT AREA(S): Attitudes—segregation

TREATMENT(S): Role-playing

Culbertson, F. Modification of an emotionally held attitude through role playing. Journal of Abnormal and Social Psychology, 1957, 54, 230-233.

The study evaluated the use of role-playing in attitude change. The author hypothesized that: (a) role-playing of positive attitudes towards integration of housing would modify negative attitudes toward that issue and increase favorable attitudes toward blacks in general; (b) favorable changes would be greater among subjects who role-played than among subjects who simply observed the role-playing; and (c) favorable changes would be greater among subjects low in authoritarianism than among subjects high in authoritarianism (as measured by the F scale, Adorno, Frenkel-Brunswik, & Levinson, 1950). After taking attitude tests, 95 subjects (age not specified) were randomly assigned to two Treatment conditions and 20 subjects were placed in the Control condition. Treatment subjects, in groups of six, were either: (a) Role-players—subjects role-played positive attitudes toward the integration of housing; or (b) Observers—subjects observed the role-playing. All predicted changes occurred. A questionnaire, answered after the role-playing, showed more involvement and motivation among Role-players than among Observers. The author implied that information about attitudes was insufficient to produce change and that the projection of feelings and self-insight gained from role-playing were the mediating forces in attitude change.

EFFECT AREA(S): Attitudes–punishment of civil disobedience

TREATMENT(S): Discussion

Cvetkovich, G., & Baumgardner. Attitude polarization: The relative influence of discussion group structure and reference group norms. Journal of Personality and Social Psychology, 1973, 26(2), 159-165.

The study explored attitude polarization (e.g., directional change) resulting from the discussion of punishment of civil disobedience in groups which were required to reach consensus. From analysis of the attitudes of a reference group (first-year psychology students) salient to the Experimental population, the authors concluded that there was a majority opinion (basically nonpunitive) on the question of civil disobedience. It was hypothesized that: (a) group discussion would increase the participants' involvement with the discussion topic, resulting in individual opinions and a group consensus more extreme than previously held attitudes; and (b) polarization would be in the direction of the opinion of the reference group rather than toward the average discussion-group attitude. One hundred twenty-nine college students were assigned to three-member discussion groups. Membership was varied according to nine possible combinations of subjects' minority and majority attitudes (i.e., nonpunitive, punitive, and moderate) as previously measured on a questionnaire that recorded agreement or disagreement on items related to punishment for civil disobedience. The discussion groups were identified as being (a) Norm-congruent, (b) Norm-incongruent, or (c) Mixed (both [a] and [b]) on the basis of a comparison of the members' mean individual attitudes and the majority attitude of the reference group. Each group discussed six items related to the topic until consensus was reached. Subjects then rerated their agreement or disagreement on punishment for civil disobedience. Results confirming the hypotheses indicated that: (a) Norm-congruent and Norm-mixed discussion groups held opinions more like those of the reference group after discussion; (b) the average individual personal opinion of Norm-congruent and Norm-mixed groups was closer to the reference group majority opinion after discussion; and (c) within each Norm condition, majority/minority structure of the group did not significantly affect attitude change. However, Norm-incongruent groups experienced attitude change. The authors implied it was relatively easy to cause polarization of majority opinion through discussion when the discussion involved confrontation with minority-held views. Radicalization of minority opinion appeared more difficult.

EFFECT AREA(S): Attitudes—toward cheating

TREATMENT(S): Attitudinal/Affective Manipulation—reinforcement and restraint in a prior cheating experience varied

Mills, J. Changes in moral attitudes following temptation. *Journal of Personality*, 1958, *26*, 517-531.

The study applied the cognitive-dissonance theory of attitude change (which asserts that attitude change is an attempt to reduce the dissonance resulting from contradictory cognitions) to the area of moral decisions. It was hypothesized that: (a) subjects who decided not to cheat when tempted would become more severe (disapproving) in their attitudes toward cheating, while those who cheated would become more lenient toward cheating (thus, in both cases, reducing dissonance); (b) the greater the motivation to cheat, the greater would be the increase in severity and disapproval by subjects who remained honest, while less motivation to cheat would result in increased leniency by those who succumbed; and (c) the less the restraint against cheating, the greater would be the increase in severity by honest subjects, while greater restraint would increase cheaters' leniency. Twenty-four sixth-grade classes in 17 schools were measured for their attitudes toward cheating and placed by class into one of four conditions: (a) High Motivation (to cheat), Low Restraint (against cheating)—a class was offered a large prize for winning the contest, and it was easy to cheat without being detected; (b) Low Motivation, Low Restraint; (c) High Motivation, High Restraint; and (d) Control—attitudes were measured without participation in the contest. The first hypothesis, that subjects would change their attitude toward cheating in order to reduce dissonance, was weakly confirmed. Honest subjects increased the severity of their anticheating attitudes significantly more in the High-motivation, Low-restraint condition than in the Low-motivation, Low-restraint condition, and cheaters increased the leniency of their attitudes significantly more in the Low-motivation, Low-restraint condition than in the High-motivation, Low-restraint condition, thus confirming the relation between motivation and attitude change predicted by hypothesis (b). However, although cheaters in the High-motivation, High-restraint condition increased the leniency of their attitudes significantly more than did cheaters in the High-motivation, Low-restraint condition, honest subjects increased the severity of their attitudes more in the High-motivation, High-restraint condition than in the High-motivation, Low-restraint condition. Thus the hypothesis concerning the effect of restraint on attitude change was only partially confirmed.

EFFECT AREA(S): Attitudes—racial prejudice

TREATMENT(S): Discussion

Myers, D. G., & Bishop, G. D. Discussion effects on racial attitudes. Science, 1970, 169, 778-779.

The study was designed to explore in the laboratory the kind of attitude polarization prevalent in society. The authors predicted that group discussion would: (a) enhance the dominant values of the group, and (b) increase polarization between groups composed of high- or low-prejudiced subjects. Two hundred fifty-six high school students of unspecified age were categorized as (a) High-, (b) Medium-, or (c) Low-prejudice subjects and assigned as groups to a Treatment or Control condition. Each subject individually rated agreement or disagreement on eight racial attitude items (along a 19-point scale). The groups in the Treatment condition then discussed each item for 2 minutes to reach consensus on it. After each item was discussed, the experimenter asked the subject to think about what was said in the discussion before rerating the item. Control subjects discussed irrelevant material and were retested on the attitude items. As hypothesized, the average attitude scores of High- and Low-prejudice subjects in the Treatment condition moved farther apart, while the attitudes of the Control subjects became less extreme. The study did not indicate how the discussion process produced attitude shifts. Findings support the educational implication that discussion would not be useful in changing attitudes of prejudiced groups.

EFFECT(S): Attitudes

TREATMENT(S): Attitudinal/Affective Manipulation—arousal of self-insight

Stotland, E., Katz, D., & Patchen, M. The reduction of prejudice through the arousal of self-insight. Journal of Personality, 1959, 27, 507-531.

The study attempted to change prejudiced attitudes toward blacks through the achievement in subjects of self-insight concerning personality mechanisms responsible for the prejudice. It was hypothesized that: (a) the effect of arousal of self-insight upon attitude change would be greater when performed with a threefold method of attitude change (described below) than when any one of the three techniques was omitted; (b) the effect of self-arousal upon attitude change would at first be small but would increase over time (the "Sleeper Effect"); (c) individuals in the medium range of ego-defensiveness would change their attitudes more than would individuals high or low in ego-defensiveness; and (d) changes in the target attitudes would be accompanied by changes in related attitudes and values. Two hundred eighty-five white female college students were measured for the tendency to employ rigid ego-defenses (Adorno's, 1950, F-scale was used) and for attitudes toward blacks and Jews. Subjects next read a case study designed to provide insight into the dynamics of prejudice and were exposed to additional attitude-change influences according to one of four conditions: (a) Self-involvement, Relevance, Consistency—subjects put statements relevant to prejudice in the correct logical order and received instruction on how to be logically consistent in their attitudes; (b) Consistency Omitted—subjects only ordered relevant statements; (c) Relevance Omitted—subjects ordered statements about prejudice toward townspeople; and (d) Self-involvement Omitted—subjects read but did not order the statements. After the attitude-change treatments, attitudes were measured again, and 3 to 4 weeks later attitudes were measured a third time. The total measure of "stereotypes" changed significantly only for Group (a); for the other groups, significant change occurred on some but not all elements of the stereotype measure. However, none of the experimental treatments significantly affected "behavioral attitudes" such as discriminatory ideas about housing, integration, etc. The authors suggested that the latter attitudes may be maintained more by motives of conformity and self-gain than by the type of internal personality dynamics involved in ego-defensiveness. The "Sleeper Effect" was observed for only two conditions: (a) and (c). Contrary to prediction, only subjects low on ego-defensiveness showed a significant lessening of prejudice; the moderately defensive subjects did not show significant attitude change. The authors acknowledged that this result suggests that not reduction of defensiveness due to self-insight but increased awareness of the inappropriateness of prejudice (Reviewer's Comment: not to mention experimental demand) was responsible for the attitude change. As for changes in related values, significant reduction in chauvinism (national, not sexual) occurred for subjects in condition (a). When experimental techniques were considered individually, the manipulation most effective in producing attitude change was Consistency.

Citations of Abstracts Dealing with Attitudes Which Appear in Full under Another Effect Area

Edwards, J. Resistance to attitude change: Applications of the value bonding model. (Doctoral dissertation, The Ohio State University, 1970). (University Microfilms No. 71-19, 025) (p. 143)

Hollen, C. C. Value change, perceived instrumentality, and attitude change. (Doctoral dissertation; Michigan State University, 1972). (University Microfilms No. 72-22, 229) (p. 145)

Nelson, C. Anchoring to accepted values as a technique for immunizing beliefs against persuasion. (Doctoral dissertation, Columbia University, 1966). (University Microfilms No. 66-9367) (p. 149)

Oram, P. Induction of action and attitude change: The function of role-self value and level of endorsement. (Doctoral dissertation, Boston University Graduate School, 1959). (University Microfilms No. 66-11, 277) (p. 149)

Ostrom, T., & Brock, T. A cognitive model of attitudinal involvement. In R. Abelson, E. Aronson, W. McGuire, T. Newcomb, M. Rosenberg, & P. Tannenbaum (Eds.), *Theories of cognitive consistency: A sourcebook.* Chicago: Rand McNally, 1968. (p. 150)

Rokeach, M., & McLellan, D. Feedback of information about the values and attitudes of self and others as determinants of long-term cognitive and behavioral change. *Journal of Applied Psychology*, 1972, *2*(3), 236-251. (p. 153)

Citations of Studies Related to Attitudes without True Training Effects

Fendrich, J. A study of the association among verbal attitudes, commitment and overt behavior in different experimental situations. *Social Forces*, 1967, *45*, 347-355.
Manipulation—prior commitment

Kelley, H. & Volkart, E. The resistance to change of group-anchored attitudes. *American Sociological Review*, 1952, *17*, 453-465.
Manipulation—public-private expression of group norms

CONFLICT RESOLUTION

Because of the few studies in this Effect Area, a formal definition has been omitted.

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EFFECT AREA(S): Conflict Resolution

TREATMENT(S): Direct Training—discussion between conflicted parties
Role-playing—social reinforcement

Kifer, R., Lewis, M., Fixsen, D., Wolf, M., & Phillips, E. The S.O.C.S. model: Training pre-delinquent youths and their parents in negotiation responses to conflict situations. Paper presented at the annual convention of the American Psychological Association, Montreal, 1973.

The study tested a method for solving conflicts (situations in which two people have opposing desires or goals) through negotiation. No hypotheses were stated. Three parent-child pairs (children were aged 13 to 17 years, had had at least one contact with Juvenile Court, and were referred for psychological aid by their parents) were taught Jan B. Roosa's S.O.C.S. (Situation-Options-Consequences) technique of negotiation, a three-step process of stating opposing positions, identifying the conflict issue, and suggesting solution options. The dependent measure was the nature of the agreements reached—either compliant (one party giving in) or compromise solutions. Observation indicated that training was successful in teaching negotiated behaviors and that negotiation behaviors generalized to new conflict situations in subjects' homes. (Reviewer's Comment: Statistical tests were not used, and the authors indicated that prompting was sometimes necessary during the laboratory testing before the negotiation behaviors were emitted.)

EFFECT AREA(S): Conflict Resolution

TREATMENT(S): Direct Training

Lewis, M., Kifer, R., Green, D., Roosa, J., & Phillips, E. The S.O.C.S. model: A technique for training predelinquents in complex communication skills. Abstract of a paper, n.d.

The study was concerned with training predelinquents in communication skills. Hypotheses were not stated in the source. Two groups of parolees "identified as having inadequate communication skills" in interacting with authority figures were placed in training classes. Classes employed Roosa's S.O.C.S. conflict-resolution method (Jan B. Roosa, Prairie Village, Kansas), which involves: (a) identifying a specific conflict situation (S), (b) determining possible options (O), (c) selecting probable consequences (C), and (d) simulating desired behaviors (S). Subjects also received tokens for performance of four communication steps: (e) stating their position, (f) requesting feedback, (g) stating the differences between their and another's position, and (h) suggesting options for conflict solutions. Results showed a significant increase in communication behaviors for subjects in both groups, as well as an increase in negotiated agreement in a variety of conflict situations.

Citations of Studies Related to Conflict Resolutions without True Training Effects

Teger, A. The effect of early cooperation on the escalation of conflict. Journal of Experimental Social Psychology, 1970, 6, 187-204.
Manipulation—cooperation; timing of a hostile act

CONFORMITY

Because of the few studies in this Effect Area, a formal definition has been omitted.

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EFFECT AREA(S): Conformity

TREATMENT(S): Attitudinal/Affective Manipulation—shared minority status varied

Darley, J., Moriarity, T., Darley, S., & Bersheid, E. Increased conformity to a fellow deviant as a function of prior deviation. Journal of Experimental Social Psychology, 1974, 10, 211-223.

The article reported two experiments on the effect of shared minority status in a group-judgment situation upon a subject's subsequent conformity to the judgments of a fellow deviant.

Experiment 1 hypothesized that a deviation experience--a situation in which a subject found his own judgment at odds with the group consensus—would result in: (a) a future decrease in the subject's conformity to the majority members, and (b) an increase in his conformity to the other minority member (the fellow deviant who initially agreed with him. Sixty female college students aged 17 to 21 were exposed to a simulated group-judgment task in which their auditory perceptions consistently agreed with only one of four group members. Subjects were paired with a confederate who had either: (a) agreed or (b) disagreed with their own judgments, or (c) had not been involved in the first conformity test. Subjects were given a second conformity test in which their partner always deviated from the correct answer. A Control condition was included in which subjects heard only one confederate's correct judgments on Test 1 and then heard that confederate's incorrect judgment on Test 2. The number of times the subject agreed with the deviant confederate on Test 2 was the primary measure of conformity. On Test 1, subjects rarely conformed to the deviant group judgments. On Test 2, subjects conformed significantly more often to partners who had agreed with them on Test 1 than to partners who had not, but subjects did not conform less to a majority, Condition (b), than to a neutral, Condition (c), confederate.

In Experiment 2, 60 male college students were placed in a simulated group-response situation similar to that of Experiment 1, after having written opinions on a number of issues. They heard the recorded opinions (all simulated) of other group members before reading theirs (exactly, they were instructed, as they had written it); only one of the other members' opinions agreed with their own. Subjects then rated their liking for other members. Finally, a second conformity test repeated the conditions of Test 2 in Experiment 1. A Control condition in which all the confederates' opinions agreed with the subject's on Test 1 (but in which the confederate's opinion varied according to the three conditions of Experiment 1 on Test 2) was also included. Again, subjects conformed significantly more on Test 2 to confederates who had agreed with them on Test 1 than to confederates who had disagreed with them. Subjects liked and felt similar to confederates with whom they had agreed on Test 1 to a significantly greater extent than was true for confederates with whom they had disagreed, and, more important, minority subjects' liking for fellow deviants was significantly greater than was majority (Control) subjects' liking for other majority confederates.

The authors concluded that although conformity is not determined solely by liking, the experience of shared minority status in resisting conformity can lead to both increased liking and increased conformity to the fellow deviant.

EFFECT AREA(S): Conformity

TREATMENT(S): Reinforcement

Endler, N. Conformity as a function of different reinforcement schedules. Journal of Personality and Social Psychology, 1966, 4, 175-180.

The study was concerned with the effect of social reinforcement upon conformity to group consensus. It was hypothesized that: (a) reinforcement for agreeing with a group consensus would elicit more conformity than would reinforcement for disagreeing; (b) the strength of the reinforcement effect would depend on the amount of reinforcement given; (c) the resistance to extinction of conformity would be dependent on the amount of reinforcement received; (d) females would conform more than would males; and (e) more conformity would occur to verbal than to perceptual items. One hundred twenty college students were divided into five-person groups and subjected to peer pressure to conform to judgments about perceptual and factual (verbal) items by means of a Crutchfield (1955) conformity apparatus—a series of five interwired booths in which his peers' choices appeared on each subject's control panel after the subject made his own judgment. Subjects were placed in one of the following Reinforcement conditions: (a) True, Agree 100%—subjects were reinforced for agreeing with the inaccurate group consensus on each conformity trial (inaccurate consensus trials were interspersed with accurate consensus trials); (b) True, Agree 50%—subjects were reinforced for agreeing with the inaccurate consensus on 50% of the conformity trials; (c) True, Disagree 100%—subjects were reinforced for disagreeing on all the inaccurate consensus trials; (d) True, Disagree 50%; and (e) Neutral (Control)—subjects received no reinforcement for conformity or nonconformity. Reinforcement consisted of feedback saying that a subject's "agree" response was either true (Agree condition) or false (Disagree condition). Two weeks later subjects were retested for conformity without reinforcement and social pressure (information about peers' judgments). In both testing sessions the effect of reinforcement was significant and produced the predicted ordering of Treatment conditions with regard to amount of conformity:

In Condition (a) conformity was greatest, followed in order by (b), (e), (c), and (d). Females conformed significantly more than did males in both sessions, but there was no difference between conformity to verbal and perceptual items. The authors concluded that conformity can be socially learned and manipulated by reinforcement.

EFFECT AREA(S): Conformity

TREATMENT(S): Reinforcement
Attitudinal/Affective Manipulation—nature of prior social experience

Endler, N. Source and type of prior experience as antecedents of conformity. The Journal of Social Psychology, 1973, 90, 161-162.

The study concerned the effect of prior social interaction upon conformity. It was hypothesized that: (a) conformity would be influenced by the source and type of prior experience; (b) prior experience with others would lead to more subsequent conformity than would prior experience involving only stimulus items; (c) prior experience with stimulus items would produce less subsequent conformity than would lack of it; and (d) reinforcement for agreeing with a false consensus would produce more conformity than would reinforcement for disagreeing. One hundred sixty Canadian Forces enlisted men aged 18-25 years received treatments (details unspecified) for three independent variables—source of prior experience, type of prior experience, and reinforcement—and conformity was measured in a "social communication apparatus," but the source specified no further details. Although statistical results were not provided in the source, it was found that prior experience with others "may foster conformity" and that experience with stimulus items per se "may lead to feelings of competence and subsequent independence from conforming." The effect of reinforcement upon conformity was not reported. The authors suggested that explanations for the conformity they found might include a desire for acceptance by one's peers, a desire to appear competent, or simply a tendency to return conformity for conformity—to conform to someone who has conformed to you.

Citations of Studies Related to Conformity without True Training Effects

Allen, V., & Levine, J. Consensus and conformity. *Journal of Experimental Social Psychology,* 1969, *5*, 389-399.
Manipulation–presence/absence of social support and extreme dissent

Allen, V., & Levine, J. Social support and conformity: The role of independent assessment of reality. *Journal of Experimental Social Psychology,* 1971, *7,* 48-58.
Manipulation–presence/absence of social support

Baron, R., Monson, T., & Baron, P. Conformity pressure as a determinant of risk taking: Replication and extension. *Journal of Personality and Social Psychology,* 1973, *28*(3), 406-413.
Manipulation–pressure to conform; social desirability of group decision

Crutchfield, R. Conformity and character. *American Psychologist,* 1955, *10*, 191-198.
Manipulation–group behavior; reinforcement

Dittes, J. & Kelley, H. Effects of different conditions of acceptance upon conformity to group norms. *Journal of Abnormal and Social Psychology,* 1956, *53*, 100-107.
Manipulation–perceived group acceptance

Endler, N. S. The effects of verbal reinforcement on conformity and deviant behavior. *The Journal of Social Psychology,* 1965, *66*, 147-154.
Manipulation–verbal reinforcement

Freedman, J., Wallington, S. & Bless, E. Compliance without pressure: The effect of guilt. *Journal of Personality and Social Psychology*, 1967, *7*, 117-124.
Manipulation–induced guilt

Kiesler, C., Zanna, M., & DeSalvo, J. Deviation and conformity: Opinion change as a function of commitment, attraction, and presence of a deviate. *Journal of Personality and Social Psychology*, 1966, *3*(4), 458-467.
Manipulation–commitment; presence/absence of a deviate

McMillen, D. L. Transgression, self-image, and compliant behavior. *Journal of Personality and Social Psychology*, 1971, *20*(2), 176-179.
Manipulation–transgression; chance to enhance self-esteem

Newtson, D., & Allen, U. L. Norm formation and social influence in children. *Proceedings of the 79th Annual Convention of the American Psychological Association,* 1971, 157-158 (reprint).
Manipulation–group interdependence

COOPERATION

Because of the few studies in this Effect Area, a formal definition has been omitted.

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EFFECT AREA(S): Cooperation

TREATMENT(S): Reinforcement

Azrin, N., & Lindsley, O. The reinforcement of cooperation between children. *Journal of Abnormal and Social Psychology*, 1956, *52*, 100-102.

The study sought to determine whether cooperation could be developed, maintained, and extinguished solely by reinforcing the operant cooperative response, with no or minimal cognitive structuring of the cooperative situation. No hypothesis was stated. Twenty children aged 7 to 12 years were divided into 10 pairs matched for age and sex. Cooperation consisted of one child placing his stylus in a hole immediately after his partner had made the identical response. If the two responses occurred within .04 seconds of one another, they were reinforced. Two 15-minute cooperation periods were run with an intervening extinction period. All teams learned to cooperate within the first 10 minutes of reinforcement. Frequent communication occurred. During the extinction period cooperation declined gradually, and reacquisition occurred almost immediately when the second reinforcement period began. All these changes in rate of cooperative responding were statistically significant.

EFFECT AREA(S): Cooperation

TREATMENT(S): Reinforcement—verbal approval

Klotz, J., & Shantz, D. W. Cooperative behavior of emotionally disturbed boys as a function of contingent application of social approval. *Journal of Behavioral Therapy and Experimental Psychiatry*, 1973, *4*, 34-37.

The study explored the role of reinforcement in increasing cooperation in a group activity and the generalization of cooperation to other tasks. It also tested the assumption that reinforcement of a desirable response (cooperation) that is incompatible with an undesirable response (non-cooperation) would decrease the frequency of the undesirable response. Twelve emotionally disturbed boys (mean CA 14.5 years) were randomly assigned to a Treatment or a Control group. Both groups participated in 12, 40-minute sessions in which each group sat around a table and each subject assembled a toy model. Only one tube of glue was provided for each table. In the Treatment condition the experimenter gave verbal approval when a subject interacted cooperatively (shared the glue). In the Control condition the experimenter gave verbal approval for responses of individual achievement without reference to sharing. The experimenter recorded the number of cooperative and noncooperative interactions involving the glue. The generalization of the training for cooperative behavior was measured by the subject's performance on a modified Madsen board task (Madsen, 1967); dyads from the Treatment and Control groups had to manipulate strings (cooperatively) to make a pencil mark in each of three target zones on the board; communication was allowed. Experimental subjects showed a significant linear increase across sessions in their level of cooperation; Control subjects failed to show an increase in cooperation. No differences were observed in levels of noncooperation between groups or across sessions. A significant level of generalization of cooperative behavior was shown by the Experimental group.

EFFECT AREA(S): Cooperation–competition

TREATMENT(S): Attitudinal/Affective Manipulation–direction and strength of attitude toward partner varied

Krauss, R. Structural and attitudinal factors in interpersonal bargaining. Journal of Experimental Social Psychology, 1966, 2, 42-55.

The study was concerned with the mutual influence of interdependent goal behavior (cooperation-competition) and attitudes toward one another in pairs of subjects performing a bargaining task. It was hypothesized that bargaining would be more effective: (a) when subjects' relationship was cooperative and there were no strongly anchored (resistant to change) negative attitudes; and (b) when subjects' attitudes toward one another were positive and strongly anchored. Eighty pairs of female subjects aged 18 to 35 years (mean CA 24 years) were randomly assigned to the cells of a 2 x 2 x 2 factorial experiment consisting of: (a) two types of interdependent goal behavior (Cooperation and Competition); (b) two types of attitudes toward one another (Positive and Negative); and (c) two levels of attitudinal anchoring (Strong and Weak). Subject-pairs played 10 trials of a bargaining game in which cooperation resulted in greater monetary rewards for both subjects than did competition but required on a given trial that one subject allow the other a monetary advantage. In the Cooperative condition a subject's score was increased by a percentage of his partner's winnings; in the Competitive condition a subject's score was increased by a percentage of his partner's losses. Attitudes toward partners were established by having each subject read a questionnaire allegedly filled out by her partner, whose responses either agreed or disagreed with the subject's own responses to the same questionnaire. Anchoring of attitudes was manipulated by telling subjects that the questionnaire offered either a good or only a partial basis upon which their partners could be judged. The results of subjects' ratings of their partners indicated that the attitude manipulations were successful. The variables of the study interacted in the predicted manner. Significantly more effective bargaining occurred in the Cooperative than in the Competitive conditions when attitudes were weakly anchored, regardless of direction of initial attitudes, but when attitudes were strongly anchored the Cooperation-Competition difference was replaced by a difference (in bargaining effectiveness) between Attitude conditions: Positive Attitude toward partners resulted in better bargaining than did Negative Attitude toward partners. The authors interpreted their results in terms of Heider's cognitive-balance theory, which asserts that individuals seek a state of cognitive balance between the structure (cooperative or competitive) or their relationships with another and their attitudes toward him. When attitudes are anchored they determine the nature of the relationship; when they are not, the relationship influences attitudes.

Citations of Studies Related to Cooperation without True Training Effects

Anderson, A. J. Threat, communication, and conflict of interest in the Deutsch and Krauss trucking game. Dissertation Abstracts International, 1973, 33, 6098-B.
Manipulation—conflict of interest; availability of communication; threat

Berkowitz, N., Hylander, L., & Bakaitis, R. Defense, vulnerability and cooperation in a mixed-motive game. Journal of Personality and Social Psychology, 1973, 25(3), 401-407.
Manipulation—ability to nullify threat

Bonoma, T., Tedeschi, J., & Helm, B. Some effects of target cooperation and reciprocated promises on conflict resolution. Sociometry, 1974, 37(2), 251-261.
Manipulation—partner's reaction

Deutsch, M., & Krauss, R. The effect of threat upon interpersonal bargaining. Journal of Abnormal and Social Psychology, 1960, 61, 181-189.
Manipulation—presence of threat

Gruder, C., & Duslak, R. Elicitation of cooperation by retaliatory and nonretaliatory strategies in a mixed-motive game. Journal of Conflict Resolution, 1973, 17(1), 162-175.
Manipulation—partner's retaliation

Madsen, M., & Connor, C. Cooperative and competitive behavior of retarded and nonretarded children at two ages. Child Development, 1973, 44, 175-178.
Manipulation—encouragement of cooperation

Maxwell, G., Schmitt, D., & Shotola, R. Cooperation and interpersonal risk. Journal of Personality and Social Psychology, 1971, 18(1), 9-32.
Manipulation—presence/absence of risk and communication

Miller, G., & Pyke, S. Sex, matrix variations, and perceived personality effects in mixed-motive games. Journal of Conflict Resolution, 1973, 17(2), 335-349.
Manipulation–partner's characteristics and promises

Mithaug, D., & Burgess, D. The effects of different reinforcement contingencies in the development of social cooperation. Journal of Experimental Child Psychology, 1968, 6, 402-426.
Manipulation–group/individual reinforcement and feedback

Nelson, L. The development of cooperation and competition in children from ages five to ten years old: Effects of sex, situational determinants, and prior experiences. Dissertation Abstracts International, 1970, 4368-B.
Manipulation–cooperative/competitive stimulus cues

Richmond, B., & Weiner, G. Cooperation and competition among young children as a function of ethnic grouping, grade, sex, and reward condition. Journal of Educational Psychology, 1973, 64(3), 329-334.
Manipulation–group vs. individual reinforcement

Schlenker, B. R., Helm, B., & Tedeschi, J. T. The effects of personality and situational variables on behavioral trust. Journal of Personality and Social Psychology, 1973, 25(3), 419-427.
Manipulation–partner's promise and credibility

Wrightsman, L. Personality and attitudinal correlates of trusting and trustworthy behaviors in a two-person game. Journal of Personality and Social Psychology, 1966, 4(3), 328-332.
Manipulation–reinforcement

EMPATHY

DEFINITION: Empathy—The vicariously experienced thoughts and feelings of another person. Although empathy includes the skill of role-taking (see below) and at times is used interchangably with it, empathy is a broader category than role-taking, since it most often includes an affective component as well as a cognitive one. In the studies presented here empathy is usually studied by counseling professionals to identify how it works in the helping relationship.

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EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training—encounter groups

Bellanti, J. The effects of an encounter group experience on empathy, respect, congruence and self-actualization. Dissertation Abstracts International, 1972, 32(11), 6668-6669-B.

The study attempted to analyze the effects of an encounter-group experience on three skills believed to facilitate a helping (i.e., counseling) relationship: empathy, respect, and congruence. The study was also concerned with the relationship between changes in self-actualization scores and these three skills. Five hypotheses were advanced: (a) - (d)—trainees who participated in an encounter group would show greater increases in immediate and delayed posttest scores for (a) empathy, (b) respect, (c) congruence, and (d) self-actualization than would trainees in an unstructured group and Controls; and (e) changes in empathy, respect, and congruence would be correlated with increases in self-actualization. Subjects were given the Personal Orientation Inventory (POI) to measure self-actualization and two measures, a 15-minute coached-client interview (CCI) and the Counseling Simulation Interview (CSI), to assess changes in empathy, respect, and congruence. During the CCI and CSI, judges rated subjects' performance, using the Carkhuff scales for measuring empathic understanding. A pretest, immediate posttest, and delayed posttest (3 months later) were given. Subjects were placed in one of three group conditions: (a) Encounter—four groups totaling 45 trainees (no further details were given in the source); (b) Unstructured—two groups totaling 21 trainees; and (c) No-treatment Control—two groups totaling 21 trainees. The Encounter groups held 2-1/2 hour sessions for 8 weeks. The first three hypotheses received partial support—subjects' scores on the CCI indicated increases in empathy, respect, and congruence. Hypotheses (d) and (e) received no support. The author suggested that an encounter group may not be the best way of teaching the skills of empathy, respect, and congruence and of increasing self-actualization, and that the relationships between empathy, respect, and congruence and self-actualization are minimally understood.

EFFECT AREA(S): Empathy

TREATMENT(S): Modeling
Reinforcement

Cyphers, A. The efficacy of video and symbolic modeling, feedback and reinforcement as means of teaching empathy to student teachers. Dissertation Abstracts International, 1973, 33(8), 4170-A.

The article attempted to answer four questions: (a) Can student teachers be taught to respond empathically in the classroom setting through exposure to highly empathic models? (b) Are there differences between the effects of video and symbolic modeling in training student teachers to respond empathically to pupils? (c) and (d) Are student teachers who are exposed to highly empathic models perceived by pupils as being more empathic, and by supervisors as having established more understanding relationships with their students, than are student teachers who are not exposed to these models? Thirty student teachers (age not specified) were rated on empathy exhibited in the classroom using the Modified Accurate Empathy Scale (no citation given) and then exposed to one of the following conditions: (a) Video Model—subjects responded to a videotape of pupil's statements, compared their responses with those of a video model's (the teacher) which followed, and were verbally reinforced by the experimenter when their responses were similar to the model's; (b) Symbolic Model—subjects were exposed to the same training content, with pupil's and model's responses presented in a programmed text; and (c) Control—subjects responded to a pupil's statements without receiving feedback. Both Experimental groups were subsequently rated by experimenters as exhibiting significantly more empathy in the classroom than did Controls, and the Video-model subjects evidenced significantly more empathic responding than did the Symbolic-model subjects. The Experimental subjects were perceived as significantly more empathic by students and rated as significantly more understanding by their supervisors than were Controls. The authors concluded that empathy taught in the laboratory will transfer to a live classroom situation.

EFFECT AREA(S): Empathy

TREATMENT(S): Modeling
Direct Training

Dalton, R. F., Jr., Sundblad, L. M., & Hylbert, K. W. An application of principles of social learning to training in communication of empathy. Journal of Counseling Psychology, 1973, 20(4), 378-383.

The study explored the effects of modeling on the acquisition and transfer of a complex counseling behavior—communication of accurate empathic understanding. Ninety-seven college students were randomly assigned to the following conditions: (a) Modeled

Learning Experience—subjects viewed a videotape consisting of (1) a didactic presentation of introductory information about empathy, (2) a counseling session between a counselor and client that demonstrated accurate empathy, and (3) a modeled interview with pauses during which the subject was to think of an appropriate empathic response, followed by exposure to the responses of the expert counselor on the videotape, and (4) information about the posttest; (b) Modified Learning Experience—subjects viewed a brief videotaped didactic introduction to empathy and then were given material to read about empathy and the posttest; and (c) Control—subjects viewed the videotaped information about the posttest. Results from an immediate posttest indicated that subjects in the Modeled-learning-experience condition showed significantly more communication of accurate empathy (as measured by written responses to the Carkhuff Helpee Stimulus Expressions and as rated by Scale 1 of the Carkhuff scales, Carkhuff, 1969) than did subjects in the Modified-learning-experience or Control conditions. The learning differences noted in the Modeled-learning-experience condition remained stable at a 1-month posttest (71 subjects only). The author discussed the implications of the treatment for selection and preparation of counselors.

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training
Modeling
Reinforcement

Gimmestad, M. A multi-impact short-term program for training counselors in perceptual sensitivity (empathy). Dissertation Abstracts International, 1971, 32(1), 175-A.

The study was concerned with the effectiveness of a varied training program in increasing subjects' perceptual sensitivity or empathic understanding. It was hypothesized that raters would judge that as a result of training Experimental subjects had improved more in empathic ability than had Controls. Twenty college students who were Resident Advisors in dormitories (but had no formal counseling training) served as subjects. Ten Experimental subjects received 5 hours of training consisting of observation of models' empathic behavior, practice in empathic communication, and interviews with clients in which subjects were reinforced for empathic responding. Ten Control subjects received no empathy training. All subjects conducted two client interviews before and two interviews after the training period. Subjects' mean change scores on the Perceptual Sensitivity Scale from Burks' Counselor Interview Rating Scales indicated no significant difference between Training subjects and Controls, but individual learning curves suggested that the training methods "demonstrated some promise" and should be modified and lengthened rather than discarded (author's conclusion).

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training—empathy-discrimination film
Modeling

Guy, S. The influence of conceptual level and training on empathy. (Doctoral dissertation, University of Illinois, 1971). (University Microfilms No. 72-12, 190)

The study was concerned with the relation between empathy and conceptual level (CL) and the effect of training on improvement of empathic skill. Conceptual level is Harvey, Hunt, and Schroder's (1961) measure of the extent to which an individual can, by virtue of his cognitive development, employ abstract cognitive processes in his social relations. It was hypothesized that: (a) a "video tape empathy training analogue" would increase empathic skill; and (b) CL would be related to empathy. Forty college seniors (most of them secondary education majors) were given the Paragraph Completion measure of CL, divided by CL (High and Low), and assigned to two conditions: a Training group and a Control. Training involved viewing a 28-minute empathy-discrimination-training videotape developed by the author from the work of Truax and Carkhuff (1967) and Carkhuff (1969, vol. 1). On the tape empathic techniques were described, and then models with high and low empathic styles of social interaction were displayed. Control subjects viewed a 28-minute film on hypnosis. Trained raters scored the content of subjects' responses to simulated client statements; the statements and rater training procedure were based on Carkhuff's (1969) work with empathy communication. Empathy-discrimination training significantly increased subjects' scores on both empathy measures, while CL was not significantly correlated with either. The author acknowledged that his training methods were limited and his measures crude.

EFFECT AREA(S): Empathy—genuineness; nonpossessive warmth

TREATMENT(S): Direct Training—college course in empathy

James, M. The effects of interpersonal relations training on prospective teachers. (Doctoral dissertation, University of Arkansas, 1971). (University Microfilms No. 71-19, 563)

The study was concerned with didactic training in the interpersonal skills of empathy, nonpossessive warmth, and genuineness. It was hypothesized that students who received training in these three skills would exhibit greater gains when the skills were measured than would nontrained students. Eleven female and three male college students received 54 hours of instruction in a course entitled Interpersonal Relations Training. Training involved "sensitizing" the students to the three skills, letting them practice them, giving them immediate feedback about their efforts, and then having them practice more. Thirteen female and one male college student served in a Control group. Ratings made from tapes in which subjects role-played counselors before and after the course revealed that Experimental subjects gained significantly more than did Controls in nonpossessive warmth but not in empathy or genuineness. (The groups did not differ on any of these skills on the pretest.)

EFFECT AREA(S): Empathy–genuineness; nonpossessive warmth

TREATMENT(S): Direct Training–didactic training; group therapy

Jordan, D. L. A comparison of the effects of didactic and experiential training on accurate empathy, nonpossessive warmth, and genuineness. Dissertation Abstracts International, 1968, 29(9), 3487-B.

The study investigated the differential effects of two kinds of training on accurate empathy, nonpossessive warmth, and genuineness. Students (number and age unspecified) were assigned to: (a) Didactic Training–role-playing and teaching by precept the qualities mentioned above; (b) Group Therapy–encouragement of high levels of the qualities previously mentioned; and (c) No-training Control. Findings revealed that only the Didactic Training produced a significant increase in all three qualities when compared with the Control group. Further comparisons were made with subjects in another study who had received a longer period of integrated training combining both (a) and (b). The two Treatment groups in the present study equaled the results of the integrated training group only on the criterion of nonpossessive warmth. The author suggested that longer periods of training, especially for genuineness, were needed for successful results. The author also implied that there might be little relationship between training for one of the qualities and actual demonstration of that quality.

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training

Kleiner, F. Personality and Training: Their effects on the communication of empathy. Dissertation Abstracts International, 1971, 32(1), 563-B.

The study attempted to train subjects in empathic communication. Hypotheses were not stated. Sixty-five graduate and undergraduate students were administered the Personal Orientation Inventory, a measure of self-actualization, and the Dogmatism Scale (no citations given) and assigned to one of three conditions: (a) Training–subjects received "empathic response training" involving practice and feedback in making empathic responses; (b) No Training, Empathy Instructions; and (c) No-training Control. After the training period all subjects viewed films of a client in a therapy situation. Groups (a) and (c) were told to respond to the client's statements "in whatever way you think would be most helpful to the client," whereas Group (b) was given a definition of empathy and instructed to respond empathically. The subjects who received training showed significantly more empathic communication than did other subjects. Only self-actualization was correlated with empathy, and only on some criteria (details not specified in the source). The author concluded that training was more important than personality characteristics in determining empathy but cautioned that this result might not hold at levels of empathy higher than those reached in this study.

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training—Zen Buddhist techniques of internal and external concentration

Leung, P. Comparative effects of training in external and internal concentration on two counseling behaviors. *Journal of Counseling Psychology*, 1973, *20*(3), 227-234.

The study investigated whether training in meditative deep breathing (Zen Buddhist concepts of external and internal concentration) would increase the following counseling behaviors: (a) the accurate and consistent hearing of specific verbal stimuli considered desirable for reinforcement, and (b) the ability to predict accurately and consistently the self-attitudes of another person. Four null hypotheses were tested in the study: (a) subjects trained in internal concentration (meditative deep breathing) would not differ in analytic-empathy score from subjects without such training; (b) subjects trained first in internal concentration would not differ in analytic-empathy score from subjects trained in external concentration and then internal concentration; (c) subjects trained in external concentration would not differ in their ability to hear accurately and consistently materials considered desirable for reinforcement from subjects without such training; and (d) subjects trained first in external concentration would not differ in their ability to hear accurately and consistently material considered desirable for reinforcement from subjects trained first in internal concentration and and then in external concentration. Sixty-seven college students (mean CA 22.75 years) were assigned to either (a) Treatment or (b) Control conditions. (Thirty-seven subjects completed the training, and 20 subjects were placed in the Control condition.) Subjects in the Treatment condition were trained in meditative deep breathing for 7 hours and in external concentration for 7 hours. After each kind of training, subjects saw a videotape showing four actor-clients discussing themselves, their surroundings, and authority figures. Subjects who had just completed the meditative-deep-breathing portion of the treatment were asked to complete an attitude scale on self, ideal self, best friend, ideal teacher, and ideal employer as they thought the characters on the videotape would complete the scale (deep breathing was to be maintained during this task). Subjects who had just finished external-concentration training were directed to indicate each time they heard an authority statement from the actor-client. An accuracy-of-prediction scale was used to measure analytic empathy, and a count of "notice authority" statements was kept (these statements were considered to fall into a category of statements that should be reinforced by a counselor). After analyzing the results the author rejected all of the null hypotheses and suggested that the training was effective.

EFFECT AREA(S): Empathy

TREATMENT(S): Modeling
Direct Training

Meshanic, R. An experimental investigation into the training of empathic skills in groups of resident assistants. Dissertation Abstracts International, 1972, 32(9), 4958-A.

The study was concerned with empathy training of Resident Assistants. Hypotheses were not stated. Eighty-nine college students serving as Resident Assistants (no further details were specified in the source) were assigned to one of four groups: (a) Audiovisual Training—subjects viewed films displaying high degrees of empathic behavior; (b) Audio Training—subjects heard the sound track of the films; (c) Training Control—subjects were exposed to material on how to function in the role of Resident Assistant; and (d) No-treatment Control. All training consisted of seven 2-hour sessions. Each subject responded to nine statements from Grand and Stockin's (1970) research procedure for determining empathic understanding presented by tape-recorder before and after the training. Judges rated subjects' responses using Carkhuff's (1967) Scale for Measurement of Empathic Understanding in Interpersonal Processes. There were no significant changes in empathy.

EFFECT AREA(S): Empathy

TREATMENT(S): Modeling
Direct Training--supervisor critiques of subject-client interviews

Payne, P., Weiss, S., & Kapp, R. Didactic, experiential, and modeling factors in the learning of empathy. Journal of Counseling Psychology, 1972, 19(5), 425-429.

The study compared three types of training for their effectiveness in producing increases in empathy in college students. No hypotheses were stated. Ninety-six male college students were assigned to a: (a) Modeling or (b) No-modeling condition. The Modeling subjects viewed films which presented and commented on differing degrees of counselor empathy in an interview situation. Subjects next heard and responded to statements of problems made by clients in three taped interview situations. All subjects were further divided into one of three conditions: (c) Didactic Supervision—a supervisor provided comments on the effectiveness of trainees' (subjects') offerings of empathy to the taped statements and gave examples of high levels of empathic responding; (d) Experiential Supervision—the supervisor responded nondirectively to trainees' feelings about their performance in the interviews; and (e) No-supervision Control. Thus the experimental design was a 2 x 3 factorial varying two Modeling conditions and three Supervision conditions. Judges rated trainees' responses to the clients (while training was in progress), using Carkhuff's (1969) 5-point empathy scale. Subjects in the Didactic-supervision condition received significantly higher empathy scores than did other subjects. Only the Didactic-supervision condition produced significant improvement in empathy over training trials. Subjects who received Modeling scored significantly higher than subjects who received No Modeling, but Didactic-modeling subjects scored significantly higher than all other groups. The authors suggested that Experiential Supervision might have been more effective had the training been longer. They considered these training techniques an effective means of developing the empathy skills of beginning counselors, but cautioned that they may not be effective for training higher levels of empathy.

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training
Modeling

Payne, P. A., Winter, D. E., & Bell, G. E. Effects of supervisor style on the learning of empathy in a supervision analogue. Counselor Education and Supervision, 1972, 11(4), 262-269.

The purpose of the study was to extend the findings of Payne and Gralinski (1968) by again comparing the effects of two major approaches of counselor training: didactic (i.e., techniques-oriented supervision) or experiential (i.e., counseling-oriented supervision). While no specific hypothesis was offered, it was expected that the didactic approach would be more successful in training counselors in empathy. Fifty-four college males and 54 college females were assigned to one of six conditions: (a) Techniques Oriented, (b) Counseling Oriented, (c) Placebo, Modeling; (d) Placebo, No Modeling; (e) Control, Modeling; and (f) Control, No Modeling. Subjects in conditions (a), (b), (c), and (e) listened to a 30-minute tape recording which described the meaning of empathy and gave modeled examples of it. Subjects in conditions (d) and (f) heard the introductory portion of the tape but no modeled examples. After listening to the tape recording, subjects in all conditions except the Control conditions were assigned to a supervisor for subsequent training sessions. These subjects then made three tapes of simulated client-counselor interviews. After the first and second tapes the supervisor held an interview with each subject, responding to the subject in a mode appropriate to his Treatment condition as follows: (g) Counseling Oriented—the supervisor used a nondirective counseling approach in analyzing the subject-client interview; (h) Techniques Oriented—the supervisor discussed the subject's effectiveness in demonstrating empathy, pointed out techniques of counseling, and specifically illustrated the use of a high level of empathy; and (i) Placebo Oriented—the supervisor talked about the psychodynamics of the client. Empathy was measured by a point-rating scale based on Truax (1961) and Barrett-Lennard (1962). Results showed that the subjects in the Techniques-oriented condition significantly improved in their level of empathy; however, the change was not significantly greater than that of the subjects in the condition of Control, Modeling. In explaining this result the author speculated that audio modeling may provide the maximum amount of training that a student can process at an early stage of training, or, alternatively, that face to face supervision may interfere with early skill acquisition.

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training—critical feedback
Modeling

Rasche, R. The effect of modeling and critical feedback on training in empathic communication. Dissertation Abstracts International, 1973, 33(9), 4524-B.

The study tested the effect of three types of supervisory feedback upon training in the therapeutic skills of empathic communication. It was hypothesized that these techniques would be more effective than non-training Control conditions in teaching empathy. College students (number not specified) were placed in one of five conditions: (a) Critical-feedback Training—subjects' responses to simulated client statements were evaluated by a supervisor; (b) Modeling of Alternative Responses (not further explained in the source); (c) combination of (a) and (b); (d) Practice, Control—subjects responded to the same simulated client statements that Experimental subjects did, without training; and (e) Self-evaluation Control—subjects rated their own responses to the same client statements. Subjects' responses to the simulated client statements and to real clients in interview situations were rated for "empathic communication." All three Training conditions were significantly more effective in increasing empathic communication to simulated client statements, and Treatment (c) was significantly more effective in increasing empathic communication in the interviews than were the Control conditions. The contradiction between these positive results and the negative results of previous critical-feedback studies was discussed.

EFFECT AREA(S): Empathy

TREATMENT(S): Reinforcement—timing of feedback varied

Reddy, W. B. Effects of immediate and delayed feedback on the learning of empathy. Journal of Counseling Psychology, 1969, 1(1), 59-62.

The study investigated the effects of immediate and delayed feedback on the learning of empathy. It was hypothesized that immediate feedback to the subject on empathy (in a counseling situation) would increase the subject's level of empathy. Thirty-six male college students watched films of psychotherapy interviews in one of three conditions of feedback: (a) Immediate Feedback—subjects received feedback on the level of empathy they exhibited while responding to the filmed client during pauses in the film; (b) Delayed Feedback—subjects received feedback on the empathy they exhibited in their responses to the filmed client after the film was finished; and (c) Control—subjects received no feedback. A total of six films were watched by the subjects; the first was the pretest (without feedback), and the last the posttest (without feedback). Results showed an increase in empathy as measured by the Truax Accurate Empathy Scale (1961) for both Conditions (a) and (b), with Immediate Feedback producing a significantly greater increase than did Delayed Feedback. The author suggested that the findings indicate that such behaviors as empathy are teachable. He discussed the implications of the study for counselor education.

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training—didactic counseling

Whyte, E. The effect of counseling on the counselor himself: A study in the development of the conditions of empathy, warmth and congruence. Dissertation Abstracts International, 1972, 32(10), 5558-A.

The study was concerned with training young counselors in empathy, warmth, and congruence. No hypotheses were stated. Forty counselors-in-training submitted a tape of an initial interview with a client. Half the subjects then received three counseling sessions (details not specified in the source); the other subjects comprised the No-treatment Control group. After the training, both groups submitted a second first-interview tape. All the tapes were rated employing the Truax scales for empathy, warmth, and congruence (citation not provided). The Experimental group showed a significant increase in warmth and empathy; the Controls decreased slightly on all three measures.

EFFECT AREA(S): Empathy

TREATMENT(S): Direct Training–T-group training

Zelenski, J. Factors influencing changes in affective sensitivity and self-actualization as the result of a T-group experience. Dissertation Abstracts International, 1973, 33(9), 4863-A.

The study was designed to determine: (a) the effects of the trainer's level of affective sensitivity (empathy) on changes in affective sensitivity of the participants of a twice-a-week 3-month T-group experience; (b) the effect of the trainer's level of self-actualization on changes in participants' self-actualization, (c) the effect of the participant/trainer relationship, and participants' willingness to change, on changes in participants' affective sensitivity and self-actualization; and (d) the interactive effects of the aforementioned variables on changes in participants' level of affective sensitivity and self-actualization. Seventy participants and 16 leaders were administered the Affective Sensitivity Scale (ASS) and the Personal Orientation Inventory (POI) (as measures of their willingness to change, the source stated, and also of their initial levels of empathy and self-actualization) and divided into eight Sensitivity-training (T-) groups, with two leaders and an average of 10 participants per group. Upon completion of the training, subjects were again administered the ASS and the POI. Changes in participants' scores on both scales were significant but unrelated to leaders' scores, to the quality of the leader-participant relationship, or to participants' willingness to change. (Reviewer's Comment: Although the source did not specifically say so, changes in scores apparently reflected increases in empathy and self-actualization.)

Citations of Abstracts Dealing with Empathy Which Appear in Full under Another Effect Area

Aderman, D., & Berkowitz, L. Observational set, empathy, and helping. Journal of Personality and Social Psychology, 1970, 14, 141-148. (p. 17)

Lenrow, P. Studies of sympathy. In S. Tomkins & C. Izard (Eds.), Affect, cognition, and personality: Empirical studies. New York: Springer, 1965. (p. 28)

Sprinthall, N. Learning psychology by doing psychology: A high school curriculum in the psychology of counseling. Southeast Alternatives, January 1974, Report 1. (p. 102)

MORAL DEVELOPMENT/JUDGMENT

DEFINITION: Moral Development/Judgment—The reasoning or opinions involving rules for behavior, justice, and criteria for decisions which affect property and persons. In this document this Effect Area usually refers to a process of general cognitive structural change which causes the sequential movement from one stage/level of moral reasoning to the next more complex stage/level.

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EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling—moral-judgment responses
Reinforcement—verbal

Ahr, P. R. Moral development and social learning: Modeling effects on children's concepts of intentionality. (Doctoral dissertation, The Catholic University of America, 1971). (University Microfilms No. 71-25, 674)

The author investigated the effects of modeling on the concept of intentionality, attempting to tie together elements of social-learning and developmental theories of moral development. Several assumptions derived from these two theoretical orientations were tested in the experiment. The subjects were 100 children between the ages of 6 years and 10 years—11 months. Forty-one subjects who demonstrated a consistent level of moral judgment (Piaget's objective or subjective orientations) were grouped according to that level and exposed to adult models who gave responses to moral-judgment story-pairs counter to the subjects' initial orientation (objective or subjective). The remaining 29 subjects who had displayed mixed orientations of moral judgment were assigned to either an Objective or Subjective Model. The experimenter verbally reinforced the subjects when they gave modeled responses. For all groups, Modeling produced significant changes in moral judgment which generalized to new story-pairs. The subjects in the objective-orientation group who received Subjective Modeling (up-trained) changed more than did those in the subjective-orientation group who received Objective Modeling (down-trained). Results showed that training effects were associated with certain cognitive structures necessary for conservation and decentering tasks as described in the theory of Piaget.

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Role-playing—moral dilemmas

Arbuthnot, J. Cognitive style and modification of moral judgment. Psychological Reports, 1974, 34, 273-274.

It was hypothesized that: (a) the role-playing of a moral dilemma would affect the moral judgment of field-dependent subjects (who are characteristically highly influenced by the social and physical environment in the making of cognitive judgments) in accordance with the cognitive level demanded by their role; and (b) field-independent subjects would not be similarly influenced. Seventy-seven college students were identified as being either field-dependent or field-independent and assigned to (a) Treatment or (b) Control conditions. Subjects in the Treatment condition role-played one of the roles in Kohlberg's dilemma of Heinz. Results indicated a positive change in moral maturity for field-dependent subjects after playing the positively conducive role of Heinz and a negative change after playing the negatively conducive role of the druggist. Field-independent subjects showed only a slight increase in moral maturity after playing the druggist role. The effects did not persist through the 1-week posttest (all changes became generally more positive). The author maintained that while field-dependent subjects show immediate response to the cognitive disequilibrium induced by role-playing, the effects attenuate over time.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling—model's reinforcement varied
Reinforcement

Bandura, A., & McDonald, F. J. Influence of social reinforcement and the behavior of models in shaping children's moral judgments. Journal of Abnormal and Social Psychology, 1963, 67(3), 274-281.

The authors hypothesized that moral-judgment responses do not follow the sequential stages outlined by Piaget and that moral orientations (objective or subjective) can be changed through modeling and reinforcement of moral-judgment responses. They further predicted that a condition providing both modeling and reinforcement would be more powerful than one providing modeling alone. Seventy-eight boys and 87 girls (CA 5 to 11 years), equally divided by sex and by objective and subjective stages (Piaget) of moral reasoning, were randomly assigned to one of the following Treatment conditions: (a) exposure to an adult model who was verbally rewarded after expressing moral judgments counter in orientation (objective or subjective) to the dominant response tendency of the subjects; subjects received verbal approval when they matched the model's responses; (b) exposure to an adult model who was verbally rewarded after expressing moral judgments counter in orientation to the dominant response tendency of the subjects; subjects received no reinforcement; and (c) No-model Control—verbal rewards were given to subjects when their moral-judgment responses were counter to their dominant response tendency. Results indicated that moral-judgment responses were positively related to age; however, they did not follow the sequential stages postulated by Piaget: both objective and subjective stages of reasoning were found to coexist in some subjects. As predicted, the Modeling conditions were significantly more effective in changing judgments than was the Reward-only condition. Unexpectedly, Modeling combined with Reinforcement was not more powerful than Modeling without Reward; the authors suggested that the relatively weak incentive of the reward may have been a partial explanation of that result.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training—Jewish ethics

Bash, M. I. Effects of the teaching of ethics on the moral judgments of students. Dissertation Abstracts International, 1974, 35(2), 879-A.

The study examined the effects of teaching Jewish ethics upon moral judgment. Students of unspecified age and number either participated in (a) Treatment—a 10-week course in Jewish ethics, or (b) a No-treatment Control group. A moral judgment test, designed by the author, was administered after each of the 10 weeks during the course and again 3 weeks after the course. Immediate posttest results showed a significant increase in the severity of moral judgments; the increase did not persist over time. The author implied that the results could be useful specifically for revision of the Jewish school curriculum and for character education in general.

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Role-playing
Discussion—responsibility stories

Blasi, A. A developmental approach to responsibility training. (Doctoral dissertation, Washington University, 1971). (University Microfilms No. 71-19,807)

The author theorized that there are characteristic levels in responsibility functioning similar to Loevinger's ego levels or Kohlberg's stages of moral judgment. The study identified responsibility levels and tested their developmental nature. One hundred nine sixth-grade students (mean CA 12.6 years) were placed in groups according to ego levels (as measured by the Sentence Completion Test for ego development, Loevinger & Wessler, 1970) and assigned to one of three conditions: (a) role-playing and discussion of responsibility stories with the content at one ego level above the group's dominant level; (b) role-playing and discussion of responsibility stories with the content at two ego levels above the group's dominant level; and (c) No-treatment Control. The results failed to prove the sequentiality of responsibility orientations, since neither of the Experimental treatments produced statistically significant changes in responsibility levels. Some changes towards self-oriented responsibility were noted in the first (a) Experimental condition. (Reviewer's Comment: The most interesting conclusions from the study were theoretical: the author discussed the dynamics of change in responsibility levels and proposed intermediate steps between the levels of responsibility initially identified.)

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Discussion—classroom
Direct Training—analysis of moral dilemmas

Blatt, M. The effects of classroom discussion program upon children's level of moral judgment. Unpublished doctoral dissertation, University of Chicago, 1970.

The author, following the developmental theory of Kohlberg, attempted to increase the level of moral maturity through the arousal of moral conflict and the natural self-resolution of such conflict. One hundred thirty-two students within two age groups (11 to 12 years, and 15 to 16 years) chosen on a racial/socioeconomic basis (whites were assumed to be lower-middle class and blacks lower class) were divided among the following conditions: (a) the experimenter presented moral dilemmas in 18, 45-minute sessions and led group discussions concerning them; the discussion leader tried to present reasoning at one stage above the subject's dominant stage in responding to statements made by a subject; (b) no adult leadership was provided, and the group simply discussed the moral dilemma after one of the members had read aloud the situation and a list of related questions; and (c) No-treatment Control. As predicted, the greatest gain in level of moral judgment was found in the first (a) Experimental group. This treatment was equally effective for both age groups but was equally significant in both racial/socioeconomic groups for only the younger subjects. The older group was affected differentially: white subjects showed a greater gain than did black subjects in moral-maturity scores. Subjects in the second (b) Experimental group gained slightly in moral-judgment scores; the impact of this intervention varied between racial/socioeconomic groups: black students changed little, and white students gained considerably in moral-judgment scores. Moral-judgment scores dropped in the Control group. There were no significant differences among the three groups in a posttest measure of cheating.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling
Reinforcement—verbal

Cowan, P., Langer, J., Heavenreich, J., & Nathanson, M. Social learning and Piaget's cognitive theory of moral development. Journal of Personality and Social Psychology, 1969, 11(3), 261-274.

The study was a replication of the Bandura and McDonald (1963) experiment designed to test two opposing theories of moral behavior: social-learning theory and Piaget's developmental-stage theory. Theoretical and empirical deficiencies of the Bandura and McDonald experiment were discussed at length, and various controls and additional analyses were added in an attempt to correct them. Thirty-eight girls and 40 boys aged 5 years—6 months to 12 years—6 months were pretested for level of moral judgment and exposed 2 weeks later to one of two Treatment conditions: (a) Modeling—subjects saw a model respond to Piaget-type moral-story-pairs in a way opposite to their level of moral judgment; and (b) Verbal Reinforcement—subjects were reinforced for responding contrary to their predominant moral orientation. As in the Bandura and McDonald study, subjects exposed to models changed their judgments significantly in both directions: subjects initially at low judgment levels increased their level of moral judgment, and subjects at high levels decreased their level. The authors suggested that their replication was not comprehensive enough to provide implications about the validity of Piaget's theory. In fact, they said, the results may have been due more to a social-coercion effect of the modeling situation than to changes in moral reasoning.

EFFECT AREA(S): Moral Development/Judgment—"constructive-internal" responses to moral situations

TREATMENT(S): Modeling—analysis of moral decisions; rule structure varied
Direct Training

Crane, V., & Ballif, B. L. Effects of adult modeling and rule structure on responses to moral situations of children in fifth-grade classrooms. The Journal of Experimental Education, 1973, 41(3), 49-52.

The study investigated the effects of modeling with or without rule structure on children's responses to moral situations. Sixty-one inner-city sixth graders listened to open-ended stories about "getting even" under one of the following conditions: (a) Model with Rule Structure—the model chose a story ending based on a constructive-internal solution and discussed the reasons for her choice; (b) Model without Rule Structure—the model chose a constructive-internal story ending but did not discuss it; (c) No-model Control—after listening to the story, the subjects selected one of the four story endings which fell into the following categories: (1) Constructive-Internal,

(2) Constructive-External, (3) Destructive-Internal, and (4) Destructive-External. (Reviewer's Comment: The author did not explicity define the terms used to describe story endings. One might infer from his example that the Constructive-Destructive dimension refers to the positive or negative consequences to self or others of the solution of the problem, and the Internal-External dimension refers to whether the main character or another person solved the problem.) Results showed a significant effect of both Modeling conditions on the Internal scores of the subjects and of Model with Rule Structure on Constructive scores. The authors suggested that because Model without Rule Structure did not result in significant differences from the Control group, Model with Rule Structure is necessary to produce change. The authors found that their results were consistent with empirical laboratory studies. They implied that the question of responsibility for moral decisions modeled in the classroom must be addressed because children are susceptible to such influences.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT (S): Direct Training—Piaget story-pairs; content and mode
of presentation varied
Reinforcement
Discussion

Crowley, P. Effect of training upon objectivity of moral judgment in grade-school children. Journal of Personality and Social Psychology, 1968, 8(3), 228-232.

The author compared the effect of varied content and varied presentation modes of Piaget story-pairs on the development of moral judgment. It was hypothesized that: (a) stories with a moral content would produce more change in moral judgments than would stories with a nonmoral content; and (b) training that required the discussion of a principle would be more effective than training which merely identified the correct response. An unspecified number of first-grade boys with an objective (Piaget) moral orientation were assigned to the following conditions: (a) Moral Stories, Labeling--subjects identified which character in the Piaget-type story-pairs was naughtier; the experimenter gave verbal approval for a correct response (based on intentions) or identified incorrect response; (b) Moral Stories, Labeling, Discussion—similar to Condition (a) except that discussion of the intentions of the naughtier character was elicited from the subject before reward or correction was given; (c) Nonmoral Stories, Labeling—similar to Condition (a) except that the content of the stories concerned issues of competence; (d) Nonmoral Stories, Labeling, Discussion—similar to Condition (b) except that stories were based on competence; and (e) No-treatment Control. Subjects in all of the Treatment conditions made more mature (subjective) responses on the posttest than did the Control group. As predicted, moral stories resulted in greater moral-judgment changes than did nonmoral stories. There was no evidence that a discussion of the principle for identifying the naughtier character in the story was more successful than mere identification of a correct response. The failure of discussion to produce better results than labeling might be explained by the conceptual difficulty of abstracting information about intentions from the discussion. The author implied that the uniformly good performance on the training task shows that objective subjects can grasp the idea of intentionality (a hypothesis contested by other researchers) when the clues for it are obvious.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling—peer model; adult model

Door, D., & Fey, S. Relative power of symbolic adult and peer models in the modification of children's moral choice behavior. Journal of Personality and Social Psychology, 1974, 29(3), 335-341.

The study investigated the different effects of adult and peer models on moral choices. No hypothesis was offered. Ninety-nine subjects aged 5 to 11 years (mean CA 8.4) were tested for orientation of moral reasoning (objective or subjective) and randomly assigned to the following conditions: (a) Adult Model; (b) Peer Model; or (c) No-model Control. In the two Modeling conditions the subjects watched a video-taped model respond (with a moral orientation opposite to that of the subject) to Piaget-type story-pairs. The subject and the videotaped model responded alternately to 20 story-pairs, and the Control subjects responded to the same 10 story-pairs as did the Treatment subjects. Posttest results after 30 days showed that the Adult Model was significantly more influential in changing the moral orientation of both subjective and objective subjects than was the Peer Model. Subjects in the Peer-model group changed their orientations more often than did subjects in the Control group. The author implied that children may imitate adults more often than peers because of the high status of the former, at least in specific situations such as those of moral choice. There was some evidence that modeling up (subjective model) was more effective than modeling down (objective model).

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training—student-centered learning; teacher-centered learning

Driscoll, J. Analysis of moral behavioral changes by the utilization of Carl Rogers' psychotherapeutic principles of learning contrasted with traditional teacher-centered learning. (Doctoral dissertation, Catholic University of America, 1964). (University Microfilms No. 74-20, 157)

The study compared the effectiveness of personalistic student-centered learning (which prescribes that learned material be relevant to the student's self-concept and in which students actively structure a major part of their learning) and traditional teacher-centered instruction (in which the student is largely a passive recipient of objectively presented material). It was hypothesized that: (a) student-centered instruction would be more potent than teacher-centered instruction in affecting students' religious behavior; but (b) the two methods of instruction would not differ in their effect upon students' religious knowledge. One hundred twenty-nine high school boys in three classes received either (a) student-centered discovery, or (b) teacher-centered reception, instruction in three courses: Personal Relations and Marriage, Practical Ethics, and Modern Man and Future Man. Standardized measures of religious attitudes and behavior and the authors' own Moral Level Scale (MLS) were administered before and after the period of instruction. The MLS assigns a subject's religious attitudes and behaviors to one of three levels of maturity: (a) Evocation Level—characterized by unreflective feelings; (b) Moral Level—in which reasons enter in and thought is given to what one "ought to do;" and (c) Ethical Level—characterized by strong commitment to moral behavior and the use of critical analysis in dealing with moral problems. Changes in factual knowledge were not significantly different for the two groups, nor were there consistent differences between the groups on the MLS or in terms of overt religious behavior.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training—instruction about the authoritarian personality

Eisenman, R. Teaching about the authoritarian personality: Effects on moral judgment. Speech presented at the American Psychological Association Convention, San Francisco, August-September, 1968 (abstract).

In this study, in order to test the effectiveness of teaching in modifying moral judgments, 200 students were administered a test of moral judgments, and then two classes received instruction about the authoritarian personality, while three classes served as Controls. Subjects who received instruction made significantly less severe moral judgments than did subjects who did not receive instruction; also, females were significantly more "moralistic" than males, and first-born women more moralistic than later-born women.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training—practicum-seminar course of study; social interaction

Erickson, L. Psychological growth for women: A high school curriculum intervention. Southeast Alternatives, Report 2, 1974.

The study was a curriculum intervention designed to redress the oft-documented circumstance that many women are less advanced in their moral and ego development than are men (Holstein, 1969; Haan, in Kohlberg & Turiel, 1974), due perhaps to the rigid role-structuring imposed by society (Weisbrodt, 1969). Hypotheses were not explicitly stated. Twenty-three sophomore high school women received a one-quarter practicum-seminar (based on Sprinthall's 1972 model) designed to foster cognitive development through a restructuring of sex-role beliefs and behaviors. The course involved both social interaction and curriculum study and consisted of four phases: (a) establishing relationships, (b) developing communications, (c) restructuring cognitions, and (d) changing overt behaviors. Cognitive-developmental objectives were listed for each phase. Subjects were given pre- and posttests on the Kohlberg Moral Judgment Interview and the Loevinger Sentence Completion Form (Loevinger & Wessler, 1970), a measure of ego development. Both tests revealed that significant cognitive and moral development occurred as a result of the course.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Direct Training—manipulation of consequence of moral judgment

Glassco, J., Milgram, N., & Youniss, J. Stability of Training effects on intentionality in moral judgment in children. Journal of Personality and Social Psychology, 1970, 14(4), 360-365.

The study was designed to measure the stability of the effects of training children in making moral judgments. A study by Crowley (1972) found that children at the objective level of moral development learned to make subjective moral judgments if they were trained with pairs of stories containing accidental versus intentional acts of equal consequence. The present study hypothesized that: (a) training effects from the Crowley study would be observable 6 months later; (b) the children who had been trained by Crowley in making subjective moral judgments would make more intentional responses to moral judgment stories which were logically similar to the ones with which they had been trained to respond intentionally, and fewer intentional responses to stories which were similar in verbal form but logically different from the stories with which they had been trained; and (c) more intentional responses would be made when story-types were presented in mixed sequence than when presented in fixed order. Eighty of Crowley's original subjects, in second grade at the time of this follow-up, were placed in three Experimental conditions in which stories requiring moral judgments were paired to manipulate the variables of intentionality of the agent's moral act and nature of the act's consequence: (a) a "bad" child performs an intentional bad act of lesser consequence than that of an accidental act (whose consequence is great) performed by the same child, (b) a "good" child performs an intentional good act of lesser consequence than his accidental good act (whose consequence is great); and (c) a "good" child performs an accidental bad act of greater consequence than his intentional bad act (whose consequence is small). For each condition, presentation sequence was also varied. The present study's pretest showed that the Crowley training effect had persisted for 6 months. Further, subjects gave significantly more intentional responses to Conditions (a) and (c), which were logically similar to stories with which Crowley had trained them (both involved "bad" intentions), than to Condition (b), which was verbally similar to, but logically different from, Condition (c). The number of intentional responses was also significantly greater when presentation sequence was mixed rather than ordered. The authors suggested that subjects' intentional responding represented changes in cognitive structure rather than the acquisition of a "superficial" verbal response set, and contended that objective moral judgments may sometimes involve, not an inability to grasp the concept of intentionality, but a failure to focus upon it when the competing cues of unequal consequence are present.

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Discussion—mother-child discussion using moral dilemmas
Role-playing

Grimes, P. *Teaching moral reasoning to eleven year olds and their mothers: A means of promoting moral development.* (Doctoral dissertation, Boston University School of Education, 1974). (University Microfilms No. 74-20, 433)

The study discussed and tested a course in moral reasoning based primarily on Kohlberg's stage theory of moral development and the research of Holstein and Blatt on the role of mothers and the effectiveness of discussion groups in moral education. It was hypothesized that: (a) children who participated in a course in moral reasoning with their mother would experience greater moral development than would children who participated without their mother; and (b) children who participated in a course without their mother would experience more moral development than would children who received no training. Thirty-three mother-child pairs (the children were fifth and sixth graders) were assigned to the following conditions: (a) Mother/Child—mothers were trained in methods of moral instruction and then participated along with their children in 10 weekly training groups involving discussion and role enactment of moral dilemma-situations; the key principles employed were exposure of children to levels of moral reasoning above their own and training in social role-taking ability (to increase empathic ability); (b) Child Only—a similar course was taught simultaneously to children without their mothers (child only group); and (c) Control—subjects received no training. The results (measured by scores on Kohlberg's Moral Judgment Scale) indicated that "a mother-child course in moral reasoning was a powerful stimulus to moral development." All but one child in the Mother/Child group and half the children in the Child-only group made stage movement, whereas only one Control-group child made stage movement.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Role-playing—conflict between reciprocal roles

Gunsberg, L. Conflict training and the development of moral judgments in children. Dissertation Abstracts International, 1974, 35(1), 505-B.

The study hypothesized that training involving playing antagonistic (reciprocal) roles in moral-situation stories in which the roles were at the subject's predominant moral level would lead to changes in moral judgment. Portions of the Kohlberg Moral Judgment Interview were administered to 57 children aged 7 years–9 months to 12 years–5 months before and after training. After the pretest, subjects were placed in one of three conditions: (a) Conflict Role-taking—subjects received role-taking training designed to emphasize the conflict between antagonistic moral roles which were at their own level of moral judgment; (b) Isolated Role-taking--the antagonistic roles were isolated from one another, so that subjects' experience of conflict was minimized; and (c) Control—subjects received no training. Subjects who received Conflict-role-taking training showed significantly greater advances in moral judgment than did subjects who received either Isolated-role-taking training or Controls. The authors concluded that conflict training produces a reorganization of the subject's cognitive structure, enabling him to make moral judgments at a higher, more advanced level.

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Discussion—leader; moral dilemmas

Hickey, J. E. The effects of guided moral discussion upon youthful offenders' level of moral judgment. (Doctoral dissertation, Boston University School of Education, 1972). (University Microfilms No. 72-25, 438)

The study based on theory from Kohlberg, sought to stimulate moral maturity in prison inmates. Forty prison inmates aged 16 to 22 years and varying in scores of moral maturity were randomly selected and divided between a Treatment and Control group. Experimental subjects took part in 36 discussion sessions of both formal (leader-presented) and informal (inmate-presented) moral dilemmas. Control subjects received no special treatment. Posttests for moral maturity indicated substantial growth among one-third of the Treatment subjects, with the rest of the Treatment subjects remaining at their initial level or only slightly higher. Most of the significant shifts occurred from Kohlberg's Stage 2 to Stage 3 level of moral judgment. The author suggested that despite the initial lower-than-average judgment scores for the prisoners when compared with nondelinquent populations (Freundlich & Kohlberg, 1971), inmates' judgment scores are not fixed at the lower level and can be improved.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Discussion
Reinforcement

Jensen, L., & Hafen, G. The effect of training children to consider intentions when making moral judgments. The Journal of Genetic Psychology, 1973, 122, 223-233.

The study replicated Jensen and Larm's (1970) moral-judgment training study with a younger sample of children. It was hypothesized that subjects could be trained to make moral judgments based on the intentions of the actor rather than on the consequences of the act. Thirty-six children aged 48 to 54 months were pretested for level of moral judgment and placed in one of three conditions: (a) Discussion Training—subjects received five training sessions during which story-pairs differing in the intentionality of moral acts were discussed with the experimenter; (b) Discrimination Training—subjects were reinforced during five training sessions with tokens for intentional responses; and (c) Control—subjects were read stories but were not trained and made no moral judgments. Ten days later all subjects were retested for moral judgment. Both Training groups made significantly more mature (intentional) moral judgments than did Controls, whose judgments made no mention of intentionality. Four-year-old children made less improvement in moral judgment than did the 5-year-old children in Jensen and Larm's (1970) study. A posttest 6 months later (on the 4-year-olds) showed that differences in moral judgment for the Experimental subjects were still significant. The authors cautioned that maturity in moral judgment may be relatively specific to the type of moral situation involved and indicated that their results cast doubt on the validity of the maturational aspect of Piaget's stage theory of moral development.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Reinforcement
Discussion

Jensen, L., & Hughston, K. The effect of training children to make moral judgments that are independent of sanctions. Unpublished paper, Brigham Young University, n.d.

The study sought to determine whether preschool children could be trained to disregard adult sanctions for moral acts and evaluate the acts according to their intrinsic moral worth. The hypotheses were: (a) subjects who received training would be better able to distinguish a "good" act from a "bad" act, even though the act's consequence gave no clue as to its worth; and (b) training which encouraged discovery and verbalization of a principle would be more effective in improving moral evaluation of acts than would training which focused on reinforcement for intentional judgments. Seventy-two children aged 4 and 5 years were pretested for moral-judgment ability and placed randomly in three conditions: (a) training consisting of reinforcement for intentional evaluations; (b) training consisting of discussion and verbalization of moral principles; and (c) Control—subjects received periods of irrelevant questions and answers. Because of a large pretest—posttest difference in responses for the Training groups, the authors argued that training produced significant improvements in moral judgment. (Reviewer's Comment: The wide range of group means on the pretest makes it difficult to draw conclusions, but the authors' contention that the changes represented changes in reasoning processes is subject to question.)

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Direct Training

Jensen, L. C., & Vance, B. Effects of training on the ethical reasoning of children. Final Report, Project No. 0-0264, Grant No. OEG-8-70-0201 (508). Washington, D.C.: Department of Health, Education, and Welfare, 1972.

The document, focusing on factors that affect the moral reasoning of young children, reported on 10 studies, 6 of which were training studies. Varying numbers of preschool children were placed in groups as follows: (a) Verbal-discrimination Training—the experimenter identified mature solutions to moral dilemmas in story form; (b) Verbal-discrimination/Didactic Training—the experimenter identified mature solutions to moral dilemmas and discussed the differences between the solutions; and (c) No-treatment Control. It was predicted that Condition (b) would be more effective than Condition (a) in increasing the level of moral reasoning. Findings showed that both types of training in all experiments except one significantly increased moral maturity on issues involving intentionality, punishment, sanctions following behavior, relativity, and imminent justice. Judgment scores in the Control condition also tended to increase. The authors suggested that the pretest facilitated training but was not sufficient to produce training effects. The researchers concluded that an increase in the level of moral judgment involves basically the acquisition of concepts rather than the learning of specific responses or a developmental process of cognitive change. They implied that it might be possible to first identify the conceptual dimensions of morality and their relationship to developmental patterns and then provide training for the concepts. They further proposed that mere presentation of moral dilemmas in any form might be sufficient to increase moral maturity.

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Direct Training—analysis of moral dilemmas
Attitudinal/Affective Manipulation—public affirmation

Keasey, C. B. The modification of moral opinions and reasoning in pre-adolescents. (Doctoral dissertation, University of California, Berkeley, 1969). (University Microfilms No. 70-17, 589)

The author investigated the relationship between change in moral opinions and moral reasoning (as described by social-learning, social-influence, or developmental theories) and tested a number of related hypotheses. One hundred twenty-six fifth- and sixth-grade subjects chose one of two alternate solutions (opinions) to a moral dilemma situation and wrote the reasons for their choice. The experimental design included 2 Control and 12 varied Treatment conditions as follows: (a) Reasoning—after the subject stated his opinion, two experimenters presented opinions (1) without supportive reasoning, (2) with supportive reasoning at the subject's dominant stage level of reasoning (same-stage reasoning) as measured by Kohlberg's judgment interview, and (3) with supportive reasoning at one stage above the subject's dominant stage of reasoning (+1 Reasoning); (b) Commitment—the subject either stated his opinion publicly (Public condition) or kept it private (Private condition); and (c) Presentation—(1) in a One-sided Presentation two experimenters gave opinions that disagreed with the opinion given by the subject; or (2) in a Two-sided Presentation the subject role-played the main character in the dilemma, and two experimenters gave him conflicting advice as to the best alternative solution. Results indicated no relationship between changes in moral opinion and moral reasoning. The variable of a One-sided Presentation accounted for most of the opinion change, but it had little influence on reasoning change. The Public condition did not produce more opinion change than did the Private condition. A posttest 1 day later indicated that +1 Reasoning caused more reasoning change than did Same-stage Reasoning; this did not hold true for a posttest 1 week later. In general, hypotheses on moral reasoning derived from theories of social learning or social influence were not supported, and hypotheses derived from cognitive-developmental theories were only partially supported.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training--analysis of moral dilemmas
Role-playing

Keasey, C. Experimentally induced changes in moral opinions and reasoning. Journal of Personality and Social Psychology, 1973, 26(1), 30-38.

The study was a test of alternative hypotheses provided by the social-learning and cognitive-developmental theories to account for changes in moral reasoning. The question addressed was whether progress in moral reasoning involves merely acquisition of new behaviors according to the principles of modeling and social reinforcement (the position of social-learning theory), or whether it entails a progressive alteration of cognitive structures (the position of the stage-level theories of Kohlberg and Piaget). The author also pointed out that two things, moral-opinion and moral-reasoning change, have been tested in previous moral-judgment studies. With regard to moral-opinion change, he hypothesized that: (a) when two sources of influence disagreed with a subject's opinions (one-sided presentation), subjects would evidence more opinion change than when one source disagreed and the other agreed (two-sided presentation); and (b) subjects exposed to opinions supported by reasoning one developmental stage above their own (+1 reasoning) would evidence more opinion change than would subjects exposed to opinions supported by reasoning at their own developmental stage (same-stage reasoning). Concerning change in moral reasoning, it was further hypothesized that: (c) subjects exposed to two-sided presentations would evidence more upward reasoning change (reasoning at a stage-level higher than their predominant stage) because of the cognitive conflict induced than would subjects exposed to one-sided presentations; (d) subjects exposed to +1 reasoning would evidence more upward reasoning change than would subjects exposed to same-stage reasoning or no reasoning; (e) more upward reasoning change would be evidenced by subjects posttested 2 weeks after the training than by subjects tested immediately after the training; and (f) subjects at the lowest stage of moral reasoning would evidence more upward reasoning change than would subjects at the higher stages. One hundred twenty-six fifth- and sixth-grade subjects were tested for level of moral judgment with Kohlberg's (1958) Moral Judgment Interview and classified by predominant stage-level of moral reasoning. Subjects were then instructed to imagine themselves as the main character in a number of moral-dilemma situations (characterized by judgmental conflict). Subjects were directed to ask for advice after making a judgment, and two experimental assistants presented advice according to one of three reasoning conditions: (a) Opinion Only—assistants gave opinions about the dilemmas' correct solutions without supportive reasoning; (b) Same-stage Reasoning—assistants supported their opinions by reasoning at subjects' perdominant moral level; or (c) +1 Reasoning; and by means of two presentation methods: (d) One-sided Presentation or (e) Two-sided Presentation. Thus the experimental design was a 3 x 2 factorial. The experiment included, in addition, a Control condition in which no advice was given to subjects. After their training, subjects were retested twice—immediately and 2 weeks later—for moral reasoning with the same and different items from the Kohlberg Moral Judgment Interview, and their reasoning was analyzed for judgment level. Subjects in the Experimental conditions changed their opinions (i.e., moral judgments) significantly more than did Controls, and subjects exposed to One-sided Presentations evidenced significantly more opinion change than did subjects exposed to Two-sided Presentations. On the immediate posttest, +1-reasoning subjects showed significantly more upward reasoning change than did other subjects, but on the 2-weeks posttest all Experimental subjects showed about the same amount of reasoning change, which was significantly more than that evidenced by Controls. Opinion change and reasoning change were not correlated, nor did method of presentation affect reasoning change. The author suggested that embedding opinions in a larger cognitive context (e.g., of supportive reasoning) makes them more resistant to change; that opinions and reasoning are separate, distinct aspects of morality; and that in the present study, advances in moral reasoning required a period of time in which the cognitive disequilibrium resulting from the training could be resolved through the creation of more advanced cognitive structures.

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Direct Training
Discussion

Kohlberg, L., Scharf, P., & Hickey, J. The justice structure of the prison—a theory and an intervention. The Prison Journal, 1971, 51(2), 3-14.

The article presented a model for moral intervention in correctional institutions developed from the authors' stage theory of moral development and two pilot studies which applied moral-development ideas and training techniques to prison life. The first study was designed to address the issues: (a) whether the justice structure of a prison could be conceptualized in terms of moral stages; and (b) whether prisoners agreed in their perceptions of the moral level of the justice practices and moral obligations which prevailed in the prison. From observation and interviews at a reformatory in Cheshire, Connecticut, the authors concluded that, independent of their own level of moral development, prisoners perceived the moral atmosphere of the institution to be at the lowest two levels of the authors' stage theory of moral development. A second study accordingly established two goals for successful moral intervention in a prison: (a) to equate prisoners' perceptions of the prison's justice structure with the prisoners' own moral level, and (b) to stimulate moral thinking by creating a social situation in which dilemmas evolving from conflicts of claims could be resolved cooperatively through group discussion. To implement these goals the authors, in an intervention in the Niantic State Farm for Women, were able to create a community situation in which small groups achieved self-government and self-discipline through the formulation of rules and adherence to moral guidelines of behavior. The authors concluded that the primary forces for change in small group-rehabilitation programs are the moral pressure of the group and the moral evaluation of each individual by staff and peers.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Direct Training—peer response to Piaget story-pairs

LeFurgy, W. G., & Woloshin, G. W. Immediate and long-term effects of experimentally induced social influence in the modification of adolescents' moral judgments. Journal of Personality and Social Psychology, 1969, 12(2), 104-110.

The experiment investigated the relationship of peer influence to change in moral-judgment orientations. Fifty-three seventh- and eighth-grade students were tested for orientation of moral judgment (Piaget—realistic or relativistic orientation) and assigned to: (a) Treatment—subjects, subdivided into groups of six, listened through headphones to 20 moral dilemmas read by the experimenter, heard responses to the stories which they believed were those of fellow subjects but which were in fact tape-recorded responses of confederates, and responded to the stories themselves; statements offered by the confederates were contrary in moral orientation to those of the subjects, and the order in which the confederates and subjects responded was changed after each story; and (b) Control—subjects received the same treatment but did not hear the confederates' responses. Short-term results indicated significant changes in orientations for both initially realistic and initially relativistic subjects. Two sets of posttests showed that relativistic subjects gradually returned to their original realistic orientation after 100 days. The study documented that long-term change in moral judgment occurs in a progressive but not in a retrogressive direction.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Direct Training—Piagetian techniques; didactic techniques

Lickona, T. The acceleration of children's judgments about responsibility: an experimental test of Piaget's hypotheses about the causes of moral judgmental change. Dissertation Abstracts International, 1971, 32(4), 2380-B.

The study attempted to train children in evaluation of moral actions: deciding the rightness or wrongness of an act in terms of either the actor's intentions (subjective-level evaluation) or the act's consequences (objective-level evaluation). It was hypothesized that training would produce an increase in subjective-level evaluations. Seventy-two sixth- and seventh-grade children in a Roman Catholic school were rated as primarily at the objective level of moral judgment on two measures: *Motives vs. Damage* (M & D) stories and *Concept-of-Lying* (COL) stories. (Both measures contrasted well-intentioned acts of bad consequence with ill-intentioned acts which produced less objective damage.) Subjects were then placed in one of four Training conditions, the first three of which were derived from Piagetian theory: (a) Pictorial Stories to facilitate decentering of attention from "one exclusive" moral orientation; (b) Interaction between an objective-level subject and a subjective-level peer in evaluating stories; (c) Inconsistent Moral Judgment by adults, designed to reduce "adult constraint"; and (d) Didactic Training in which subjects were told why subjective judgments were preferable. Eight subjects were placed in a No-training Control group. Subjects in all conditions of training showed significant increases in subjective judgment on M & D items as compared with Controls; the gains of Groups (b) and (d) were significantly larger than those of Groups (a) and (c)—larger in fact than any gains previously reported in the training literature. Gains did not generalize to the COL measure. Only the gains of Group (c) failed to hold up on a 1-week posttest. The author suggested that the fact that Didactic Training produced the greatest gains implies either that Piaget's theory is incorrect with respect to the efficacy of such training in increasing subjective evaluation or that the duration of the experiment was too short for a true comparison of training methods. The author further maintained that Piaget's theory best explains their overall results.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Direct Training—Piaget story-pairs

Lickona, T. *An experimental test of Piaget's theory of moral development.* Paper presented at the Convention of the Society for Research in Child Development, Philadelphia, April 1973.

The study investigated the effect of different methods of training on moral judgment. No hypothesis was offered; however, the author sought to test Piaget's theory relating to subjective moral judgments. Seventy-two first and second graders with an objective orientation of moral reasoning were assigned to a Control group or one of the following Treatment conditions: (a) Decentering in a Concrete Medium—the experimenter used four pictures to tell one story depicting a character who caused large damage while acting with good intentions, and another story depicting a character who caused minimal damage but acted with bad motives; the subject was asked to choose the naughtier character in each of seven story-sets used in the training; (b) Peer Interaction—subjects were paired with a subjective peer with whom they discussed their solution to the story-pairs; (c) Exposure to Adult Conflicts—the subjects listened to a tape-recorded disagreement among adults about who was the naughtier character in the story-pairs, and (d) Didactic Training—the experimenter identified the naughtier character and indicated that intentions are more important than consequences in such decision-making. Results from the study were inconclusive. All of the Treatment conditions produced significant increases in subjective judgments. The greatest amount of change from an objective to a subjective orientation of moral reasoning occurred in the Didactic-training condition, a result contrary to Piaget's predictions. The author implied that relatively brief experimental sessions cannot reproduce the antecedents necessary for developmental change, as suggested by Piaget; longitudinal training and follow-up may be necessary.

EFFECT AREA(S): Moral Development/Judgment–Kohlberg levels of judgment

TREATMENT(S): Direct Training–expository presentation of moral reasoning; filmed presentation of moral reasoning
Discussion

Lormier, R. Change in the development of moral judgments in adolescence: The effect of a structured exposition vs. a film and discussion. Canadian Journal of Behavioral Science (reprint), 1971, 3, 1-10.

Expository training in moral decisions or viewing Fail Safe, a film featuring a moral dilemma, each combined with discussion, were predicted to increase levels of moral judgment. It was hypothesized that changes in moral judgment induced by the expository training, but not by the film, would have long-term effects. One hundred thirty subjects (CA 16.5 to 19.5 years) were assigned to three conditions: (a) Expository Training–three 1-hour expositions and discussions on the basic concepts of moral decision-making; (b) Film–exposure to the movie Fail Safe and a discussion of the main characters and their moral decisions; and (c) Control–exposure to a comedy film, a movie on computers, and a lecture on the conservation of volume. Both Treatment conditions, Expository Training and Film, increased the level of moral judgment, as measured 10 days later on a posttest using Kohlberg's Moral Judgment Interview. Results of a posttest 50 days later indicated that, contrary to expectations, the level of judgment fell for subjects in the Expository-training group, increased in the Control group, and remained relatively stable for those in the Film group. The author implied that the Film Training was the preferred educational technique because the treatment's content and structure interacted with the developmental structure of the subjects to produce long-term change, whereas Expository Training produced only superficial replication of judgments.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Discussion–moral-dilemma items

Maitland, K. A., & Goldman, J. R. Moral judgment as a function of peer group interaction. Journal of Personality and Social Psychology, 1974, 30(5), 699-704.

The purpose of the study was to examine the effects of peer-group discussion on moral judgment. It was hypothesized that: (a) participation in a peer-group discussion of moral judgment would increase individual scores of moral judgment; (b) the composite level of moral judgment of the group (as determined by group consensus on a measure) would be higher than the individual levels of the group members on a prediscussion measure; and (c) the greater social conflict and pressure to agree in a discussion carried to consensus would induce greater change in the level of moral judgment than would an open-ended discussion with less conflict and pressure for agreement. Thirty-six eleventh- and twelfth-grade students were assigned to a No-discussion Control or placed in one of two Treatment conditions: (a) Consensus–subjects discussed the moral-dilemma items until they reached consensus; or (b) Open-ended–subjects simply discussed the moral-dilemma items. Posttest results confirmed the hypotheses: Consensus subjects showed greater increases in moral reasoning than did Open-ended-discussion subjects. No significant differences were found between scores in the Open-ended-discussion and the No-discussion Control conditions. The author implied that a role-taking explanation of the developmental progression of moral judgment was inadequate and that specific factors of group interaction were responsible for changes in moral maturity.

EFFECT AREA(S): Moral Development/Judgment–Piaget orientations of judgment

TREATMENT(S): Modeling–adult model; peer model

Malcolm, D. The relative efficacy of adult and peer models on children's moral judgments. Dissertation Abstracts International, 1970, 246-A.

The study tested the relative efficacy of adult and peer models in influencing children's moral judgments. It was hypothesized that: (a) adult models would produce greater imitation of moral behavior among children who typically made (Piagetian) objective moral judgments than would peer models; and (b) children who typically made subjective moral judgments would be influenced more by peer models than by adult models. Thirty objective and 30 subjective subjects were randomly assigned to three Experimental conditions: (a) Adult Model, (b) Peer Model, and (c) No-model Control. For objective subjects, both the Adult and Peer Model induced significantly more changes in moral judgment than was true for the Control subjects, but this change failed to persist. For subjective subjects, neither type of model produced significant changes in moral evaluations. The author hypothesized that his failure to confirm Piaget's findings was attributable to his subjects' being in a transitional stage of moral development and to the fact that subjective subjects were required to make regressive objective judgments.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Reinforcement

McCann, D., & Prentice, M. N. The facilitating effects of money and moral set on the moral judgment of adolescent delinquents. Journal of Abnormal Psychology, 1973, 82(1), 81-84.

The study explored the idea that increases in moral-judgment level might be attributed to previously acquired moral responses rather than to the learning of new behavior. It was hypothesized that an attempt to alter the moral set of delinquents, in the absence of new learning, would facilitate the operation of previously learned moral responses. Twenty male delinquents (mean CA 12.6 years) were assigned to either: (a) Treatment—subjects were told that intentionality story-pairs had been previously administered to teachers and that the subjects would receive a dime each time they gave the same answers (identified the naughtier character by his intentions) as the teachers did; or (b) Control—subjects simply listened to the story-pairs and identified the naughtier character. Results indicated that subjects in the Treatment condition made significantly more (an average of 20%) intentional choices after Treatment than did subjects in the Control group. The authors concluded that the increases in moral reasoning occurred without new learning, thus indicating that the subjects were applying previously learned responses more consistently. They admitted that inclusion of another Control group which received irrelevant instructions and a systematic questioning of the subjects would have ascertained whether the subjects were aware that the experiment offered alternatives based on intentionality.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling—adult model; peer model
Reinforcement—social

McManis, D. Effects of peer-models vs. adult-models and social reinforcement on intentionality of children's moral judgments. The Journal of Psychology, 1974, 87, 159-170.

The article reported two studies on the effect of modeling with social reinforcement upon subjects' moral judgments. It was hypothesized that: (a) peer models would be more effective than adult models in producing long-term increases in intentional moral judgment; and (b) the long-term stability of subjects' intentional moral judgment would be greater when training was conducted with peer models than when training was conducted with adult models. Study 1 was conducted at the end of the subjects' school year and thus could not be followed up; however, Study 2, employing the same subjects, was conducted the next fall and follow-up measures taken 3-1/2 months later. Eighteen kindergarten and first-grade students who gave primarily nonintentional responses to Piaget-type moral-judgment stories on a pretest were selected as subjects. Subjects were placed in one of three conditions: (a) Peer Modeling—models were classmates of subjects who had made primarily intentional responses on the moral-judgment pretest; (b) Adult Modeling—models were subjects' mothers in Study 1, and mothers and female strangers in Study 2; and (c) Control—subjects received no intentionality training. Training, conducted in groups of three subjects and three models each, consisted of alternate model-subject responses to moral-judgment stories. Models responded intentionally to the stories, and both models and subjects were verbally reinforced by the experimenter for intentional responses. In both studies there were 10 training sessions. In both studies the two Training groups made significantly more intentional moral judgments on both the immediate and the delayed posttests than did Controls. In neither study was there ever a difference in intentional responding between Peer- and Adult-modeling groups. The authors offered no speculations as to why their hypotheses were not confirmed. They noted that despite consistent Treatment effects, there was considerable variability among individual subjects in the acquisition of intentional responding.

EFFECT AREA(S): Moral Development/Judgment—flexibility in rule-making

TREATMENT(S): Direct Training—rule-making

Merchant, R. L., & Rebelsky, F. Effects of participation in rule formation on the moral judgment of children. Genetic Psychology Monographs, 1972, 85, 287-304.

The study, stimulated by Piaget's theory of moral development—which proposes a level of morality determined by constraint, followed by a level of judgment guided by cooperation—investigated the effect of participation in rule-making on subjects flexibility in rule-changing. One hundred kindergarten and first-grade children (CA 5 years to 7 years—9 months) were divided between two groups: (a) subjects who individually made up games and rules for playing them, and (b) subjects who played a game designed by subjects in the other group. Children who participated in rule-formation showed more flexibility in rule-changing. There was some generalization of the effect of participation to flexibility in rules made by others. Unexpectedly, first-grade children were not more flexible than the younger children.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training–peer counseling; cross-age teaching

Mosher, R., & Sprinthall, N. Psychological education: A means to promote personal development during adolescence. The Counseling Psychologist, 1971, 2(4), 3-82.

The article reported several programs which addressed the widespread failure of public schools to minister to teenagers' psychological needs and foster meaningful personal development. Revisions in the philosophy of counseling education (e.g., a rejection of the client-centered approach) were embodied in practicum-seminar courses designed to teach students personal skills such as empathy and moral judgment through direct experience. In Study 1, 23 Experimental and 23 Control subjects from two randomly selected classes in a junior high school were given the Kohlberg Moral Judgment Interview and the Loevinger Scale of Ego Development at the beginning and end of a semester during which the Experimental class received peer-counseling experience (including role-playing and discussion of personal problems). Seven Experimental subjects improved on the Kohlberg scale, while only two regressed. On the Loevinger scale, Experimental subjects showed a significant increase of one full stage of ego development. Control subjects showed no changes on either scale, which, the authors indicated, was normal for adolescents of their age. The second study conducted the same peer-counseling program with two classes of inner-city black junior high school students (20 pupils in each class). Black students improved significantly on both the Kohlberg and the Loevinger scales; in fact, although they began at a lower average level than did the white students, the blacks finished at an equal level, having improved more. A third program involved allowing high school students to participate in classroom activities of elementary schools. Results of two administrations of the Kohlberg and Loevinger scales showed little or no improvement in ego development or moral judgment for these subjects over the course of one semester's training. The article continued with a detailed description of an improvisational drama course designed to awaken students to the realm of total experience, in contrast to conventional education's concentration on acquisition of knowledge, and reported on the design of another practicum-seminar on childhood education in which older students interacted in various ways with nursery school children. (This final study reported no statistical results.) From their subjective impressions and the results of feedback from students, the authors concluded that their direct-training method can be effective in furthering the development of all aspects (moral, philosophical, self, aesthetic) of a student's ego structure.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training—Learning to Decide curriculum

Ojemann, R. H., & Campbell, A. The development of moral judgments. The Journal of Experimental Education, 1974, 42(3), 65-73.

The study reported the effects of an elementary school curriculum, Learning to Decide, on moral judgment. The program was designed to help children make moral judgments by teaching them the following concepts and processes: (a) the nature of human motivation and ways in which human motivations and needs are worked out in daily life; (b) the finding of alternative solutions to daily problems or frustrations; (c) the examination of alternatives for short- and long-term consequences for both self and others; and (d) the role of a goal or purpose in one's life, the process of personal goal formation, and the use of goals in selecting consequences and hence desirable alternatives. Seventy-four fifth graders and 64 sixth graders were assigned by grade to either a: (a) Treatment or (b) No-treatment Control. The students participated in the Learning to Decide program for four sessions a week for 6 weeks. Results from a measure designed to evaluate the program showed that fifth graders made more thoughtful moral judgments after exposure to the curriculum than did the Control group. The sixth graders, tested with a different measure, made significantly less judgments based only on effects on "me" (as opposed to effects on others) and significantly more judgments based on long-term effects (rather than short-term effects) than did the Control group. The author concluded that planned learning experiences influence the process of making moral judgments.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Direct Training—Piaget story-pairs

Peterson, C., Peterson, J., & Finley, N. Conflict and moral judgment. Developmental Psychology, 1974, 10(1), 65-69.

The authors explored the relationship between moral maturity and two ideas central to Piaget's stage of moral realism: (a) respect for adults, and (b) reliance on material damage as a measure of wrongdoing. The two elements of moral realism were set in conflict with one another by constructing Piaget-type story-pairs in which a well-intentioned adult caused a large amount of damage and an ill-intentioned child caused a small amount of damage. It was hypothesized that: (a) subjects would make more intentional judgments on a story-pair in which an ill-intentioned child did a small amount of damage and well-intentioned adult did a large amount of damage than on a story-pair in which the adult and child roles were switched or on story-pairs in which both roles were portrayed by either adults or children; (b) adults would make more intentional judgments than would second graders, who would make more than preschoolers; and (c) more intentional judgments would be made on a story-pair with children in both roles if the subjects were asked (1) "Which person was naughtiest?" than if they were asked (2) "Who did the worst thing?". Twenty nursery school children, 50 second graders, and 25 college students listened to or read story-pairs and made a judgment on the actions of the characters involved. (A different mode of story presentation was used for each age group.) The following conditions were varied within the story-pairs: (a) a well-intentioned adult caused a large amount of damage, and an ill-intentioned child caused a small amount of damage; (b) an ill-intentioned adult caused a small amount of damage, and a well-intentioned child caused a large amount of damage; (c) both roles in (a) were played by children; and (d) both roles in (a) were played by adults. Half the second graders and half the adults were asked Question (1) in Hypothesis (c), and half of each group was asked Question (2). Hypothesis (a) was confirmed for second graders, since subjects in Condition (a) made more intentional judgments than did subjects in the other conditions, between whom there was no significant difference. Hypothesis (a) was not confirmed for the other two age groups. The variation in wording, Hypothesis (c), significantly affected adults in a direction opposite to the one predicted: more intentional judgments were made following Question (2) than Question (1) (focusing on the actor). The general pattern of judgments made by the adult group supported the contention that judgments based on intention are an aspect of moral maturity.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling—live model; symbolic model
Reinforcement

Prentice, N. M. The influence of live and symbolic modeling on promoting moral judgment of adolescent delinquents. Journal of Abnormal Psychology, 1972, 80(2), 157-161.

It was hypothesized that: (a) both live and symbolic modeling would increase the level of moral judgment in delinquent males; and (b) live modeling would have a greater effect than symbolic modeling. Thirty-six male adolescents with a subjective orientation of moral judgment (Piaget) were divided among the following conditions: (a) Live Modeling—the model took turns with the subject in responding to 24 separate story-pairs; the model gave consistently high judgment responses to his stories, and the subject was rewarded when he gave similar answers; (b) Symbolic Modeling—the procedure was similar to the Live-modeling condition except the preferred responses were printed and read by the subject; and (c) Control. As predicted, both Live and Symbolic Modeling increased the subjects' level of intentionality, while the Control group showed no change; however, there were no significant differences between the two Treatment conditions. Increases in intentionality did not generalize to moral relativism, a related element of moral development.

EFFECT AREA(S): Moral Development/Judgment--Piaget orientations of judgment

TREATMENT(S): Direct Training--Piaget-type stories;
vicarious reinforcement
Modeling

Reeves, J. M. The modification of age-specific expectation of Piaget's theory of development of intentionality in moral development of moral judgments of four-to-seven-year-old children in relation to use of puppets in a social (imitative) learning paradigm. Dissertation Abstracts International, 1972, 32, 6815-6816-A.

The author attempted to modify levels of moral judgment, considered by Piaget to be age-specific, through training. Eighty children aged 4 to 7 years were assigned to four Experimental conditions composed of Treatment and Control conditions varied along with age groups (4 to 5 years and 6 to 7 years) in a factorial design. Subjects in the Treatment groups viewed a filmed presentation of hand-puppets portraying characters in Piaget-type story-pairs involving themes of accident and intent. A 6-year-old in the film was reinforced by a peer for his moral judgments. On the basis of experimental findings, the author questioned the age specificity of objective and subjective moral orientations. Subjects in the Treatment condition made significantly more subjective judgments on both an immediate and 2-week posttest than did the Controls; there were no significant differences for the training across age groups. The author implied that educational TV might provide training similar to that used in the experiment.

EFFECT AREA(S): Moral Development/Judgment

TREATMENT(S): Direct Training--discussion of moral dilemmas;
Kohlberg levels of judgment
Role-playing

Schaffer, P. Moral judgment: A cognitive-developmental project in psychological education. (Doctoral dissertation, University of Minnesota, 1974). (University Microfilms No. 74-17, 279)

The study was part of a project in psychological education which included training in moral reasoning and ego development after the fashion of Sprinthall's (1973) intervention model. Thirty self-selected eleventh- and twelfth-grade students took a 12-week course involving discussion of student-relevant moral dilemmas and role-taking in moral-dilemma situations. Instruction was given in Kohlberg's levels of moral judgment. No formal Control group was employed for the extent of the study, but comparative baseline measures were obtained from neighboring classrooms. Assessment of training showed a slight positive gain on the Kohlberg scale of moral maturity (with low-level students gaining most) but no gain on the Loevinger scale of ego development. The author stated that difficulties arose in implementing the training program and offered suggestions for achieving better training results in the future, including increasing student responsibility in the training and separate groups according to moral maturity.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling—peer model
Reinforcement—with explanation
Direct Training

Schliefer, M., & Douglas, V. Effects of training on the moral judgment of young children. Journal of Personality and Social Psychology, 1973, 28(1), 62-68.

The study was concerned with the effect of training on moral judgment. It was hypothesized that: (a) both reinforcement and modeling training would be effective in raising the level of moral judgment in children, and (b) this improvement would persist over time.

Twenty-two 6-year-old children were placed in three Experimental conditions: (a) Adult Training—an adult experimenter corrected subjects' responses, discussed the principle of intentionality, and reinforced correct responses; (b) Peer Modeling—an intentional peer modeled high-level responses; and (c) No-training Control. Both Experimental groups showed significantly more high-level moral evaluations as a result of training and on a posttest 2 weeks later than did Control subjects. There was no difference between the effect of Adult-reinforcement training and Peer-modeling training.

A second study hypothesized that the same training effects could be produced by using films and role-playing puppets instead of verbal training. A sample of 22 children (mean CA 5 years—7 months) and a sample of 14 children (mean CA 3 years—8 months) were placed in two experimental conditions: (a) Moral-judgment Training, and (b) No-training Control. For Experimental subjects, moral judgments showed a significantly greater increase of high-level responses as a result of training and on a posttest 2 weeks later than did the moral judgments of the untrained Controls.

The authors concluded that training and ontogenetic cognitive development interact in the development of moral judgment.

EFFECT AREA(S): Moral Development/Judgment–Kohlberg levels of judgment

TREATMENT(S): Direct Training–group therapy

Sebben, J. Some effects of Gestalt Therapy on moral development. Dissertation Abstracts International, September 1974, 35(3), 1396-B.

The study examined: (a) whether, because of the agreement between the Gestalt and Kohlberg theories on the prerequisites of moral development, Gestalt therapy would have an effect on subjects' level of moral judgment; (b) whether psychoanalytically oriented group therapy would affect moral development; and (c) whether a change in an individual's value system would accompany a change in his moral orientation. No hypotheses were offered. Eleven female nursing graduate students were given the Minnesota Multiphasic Personality Inventory, the Kohlberg moral-maturity scale, and the Allport-Vernon-Lindzey Study of Values before and after therapy. Five subjects participated in a Gestalt therapy group, and six subjects participated in a psychoanalytically oriented group on a weekly basis for 7 months. Gestalt therapy had no significant effect on moral development, but subjects who received psychoanalytically oriented therapy showed significant positive changes in moral judgment level. No before/after or intergroup differences were observed on the Allport-Vernon-Lindzey scale. Because of initial group differences the author questioned whether the results, such as they were, could be attributed solely to the experimental treatments.

EFFECT AREA(S): Moral Development/Judgment
Empathy
Role-taking

TREATMENT(S): Direct Training–seminar-practicum

Sprinthall, N. Learning psychology by doing psychology: A high school curriculum in the psychology of counseling. Southeast Alternatives, January 1974, Report 1.

The report presented a curriculum designed to produce "personal and human development" through direct student experience in peer counseling. A near-replication of Mosher and Sprinthall's (1971) study, this research was conducted in actual high school classrooms. No specific hypotheses were stated, but the objectives given were: (a) to increase level of psychological maturity of the pupils, and (b) to teach particular psychological skills (empathy, listening, role-taking). High school students (number not specified) participated in an elective Psychology of Counseling course, a practicum-seminar in which they were taught empathy and role-taking skills involved in effective peer counseling. Students made significant improvements on the ego-development scales (Loevinger and Wessler, 1970), Kohlberg moral-maturity scales (Kohlberg, 1972), and the Kagan Affective Sensitivity Scale (Kagan 1973). The authors suggested that their work could provide schools with "a new framework for intervention" to enhance children's psychological and moral development.

EFFECT AREA(S): Moral Development/Judgment–Kohlberg levels of judgment

TREATMENT(S): Role-playing–moral dilemmas

Tracy, J. J. Role-taking as an antecedent of shift in moral judgment. (Doctoral dissertation, University of Connecticut, 1971). (University Microfilms No. 71-29, 919)

The author hypothesized that the moral-judgment scores of subjects with initially high role-taking ability would be more affected by experimental treatment than would the moral-judgment scores of subjects with low role-taking ability. The moral-judgment level of 76 seventh-grade boys was measured using Kohlberg's Moral-Judgment Interviews; equal numbers of subjects at each level of reasoning were then randomly assigned to a Treatment or a No-treatment Control group. Subjects in the Treatment condition were asked to role-play the main character in three moral dilemmas, during which they were offered conflicting advice on what to do at one stage level above their dominant stage. The main hypothesis was not confirmed; however, Treatment was more effective with students at a preconventional moral level than with those at a conventional level. Social desirability, as measured by A Children's Social Desirability Questionnaire (Crandall, Crandall, & Kalkovsky, 1965), was significantly associated with change in moral judgment; role-taking, intelligence, SES, and stage of moral judgment were not significantly related to change in judgment level. The author favors a social-learning explanation for changes in moral judgment for two reasons: (a) some patterns of response in the posttest seemed to result from verbal conditioning rather than from a change in moral structures; and (b) social desirability was a prediction of change.

EFFECT AREA(S): Moral Development/Judgment–Kohlberg levels of judgment

TREATMENT(S): Role-playing–moral dilemmas

Turiel, E. An experimental test of the sequentiality of developmental stages in the child's moral judgments. (Doctoral dissertation, Yale University, 1965). (University Microfilms No. 66-1, 115)

The study tested two hypotheses of Kohlberg's theory of moral development. According to Kohlberg, the stages of moral judgment form an invariant sequence; Turiel thus hypothesized that (a) subjects would learn moral reasoning one stage above their initial dominant stage more easily than two stages above. Kohlberg also theorized that movement to a higher stage of moral judgment involves the integration of previous stages; the author thus hypothesized further that: (b) exposure to reasoning at one stage above the initial dominant stage would have a greater effect than at one stage below. Thirty-three seventh-grade boys (CA 12 years to 12 years–7 months), with an equal number at Stages 2, 3, and 4 of moral judgment, were randomly assigned to the following conditions: (a) subjects role-played situations from Kohlberg's Moral Judgment Interviews, with reasoning (1) at one stage above their initial dominant level, (2) at two stages above their initial dominant level, and (3) at one stage below their initial dominant level; and (b) 11 subjects were assigned to a No-role-play Control group. Significant results confirmed both hypotheses. Additional findings showed that exposure to reasoning at one stage below the dominant level had a greater effect on moral judgments than did exposure at two stages below. The author suggested that Kohlberg's concept of sequential changes in moral development might be viewed as a continuum rather than as stages represented by discrete steps. (For a report based on this dissertation, see Turiel, E., An experimental test of the sequentiality of developmental stages in the child's moral judgments. Journal of Personality and Social Psychology, 1966, 3(6), 611-618.)

EFFECT AREA(S): Moral Development/Judgment—Kohlberg levels of judgment

TREATMENT(S): Direct Training—analysis of moral dilemmas
Role-playing

Turiel, E. The effects of disequilibrium on moral judgment level. Unpublished paper, 1972.

As an extension of earlier findings on stage transition in moral development (Rest, Turiel, & Kohlberg, 1969; Turiel, 1966, 1969), the study tested the theory that moral development is stimulated by cognitive conflict. It was hypothesized that presentation of reasoning at one stage above a subject's dominant stage, through methods involving conflict, would lead to more change in moral reasoning than would presentation of any other stage of reasoning or presentation through methods not involving conflict. It was expected that an increase stimulated by conflict would occur not immediately but after a period of time. Two hundred thirty-six boys (CA 11.5 to 14.9 years) were exposed to moral reasoning through the role-playing of moral dilemmas in 1 of 12 conditions that varied: (a) the presentation of stage of reasoning as follows—(1) at one stage below the subject's dominant stage, (2) at the subject's dominant stage, (3) at one stage above (+1 Reasoning) the subject's dominant stage, or (4) at two stages above (+2 Reasoning) the subject's dominant stage; and (b) method of presentation of reasoning as follows—(1) One-sided Statements (given by the experimenter), Agree with the subject's choice of solution (or alternative action) for the moral dilemma; (2) One-sided Statements, Disagree with the subject's choice; or (3) Two-sided Statements (one character in the role-play Agreed with the subject's choice, and one Disagreed). There was also (c) a No-treatment Control group. In each of the conditions, after the dilemma was read to the subject he was asked what alternative action the main character should take. The subject role-played the main character, who sought advice from two friends who were role-played by the experimenter. The variations (a) and (b) of moral reasoning were introduced through the experimenter's role-play. One posttest was given immediately after the training to some (unspecified) subjects, and one was given after 1-1/2 weeks to the others. Results showed that Training subjects who were exposed to +1 or +2 Reasoning used +1 Reasoning significantly more often on the posttest than did subjects in the Control group. None of the above experimental effects generalized to stories not used in the treatment. As expected, conflict methods of presentation, (b2) and (b3), stimulated more delayed posttest change than did nonconflict, (b1). Unexpectedly, there was an interaction effect between stage of reasoning and method of presentation. The conditions combining +1 Reasoning with the One-sided, Disagree method and +2 Reasoning with the Two-sided, Agree/Disagree method produced the most change across posttests. Contrary to the hypothesis, the exposure to +1 Reasoning using the Two-sided method did not produce change on either posttest. Changes in choice of dilemma solutions on the posttest did not correspond to changes in reasoning. All conditions involving a Disagree only method of presentation produced a substantially greater number of changes in choice of solution than did Agree or Two-sided conditions. The author concluded that the results supported the theory of sequentiality of stages, but the data did not clearly establish the role of conflict in producing change in moral reasoning.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Modeling—model's explanation of choice and model reinforcement varied

Utech, D. The effects of three kinds of influence upon the moral judgment of objective and subjective boys and girls. (Doctoral dissertation, Loyola University of Chicago, 1971). (University Microfilms No. 71-22, 749)

The study was concerned with training children to make moral judgments in the direction opposite to their level of moral development. It was hypothesized that: (a) the order of decreasing effectiveness of training techniques in changing moral judgment would be (1) modeling plus reinforcement plus cognitive information, (2) modeling plus cognitive information, (3) modeling plus reinforcement, and (4) modeling alone; and (b) objective-level children would be more influenced to alter their moral judgments than would subjective-level children; and (c) girls would be more susceptible to change in moral judgments than would boys. Fifty boys and 50 girls were pretested for level of moral development and then asked to make moral judgments on stories under one of five Experimental conditions: (a) a model gave moral judgments and was reinforced for them by the experimenter; (b) a model gave moral judgments, without reinforcement; (c) a model gave correct responses and explanations of her choices, with reinforcement; (d) a model gave correct responses and explanation of her choices, without reinforcement; and (e) Control—no model was present. In all conditions the model's responses were opposite to the subject's level of moral development. Twenty days later all subjects were asked to make similar moral judgments on a posttest. Significant changes in type of moral responding occurred for subjects of both levels: subjective subjects gave increasingly more subjective judgments, from pretest to experiment to posttest. The only evidence for differential training effects occurred for objective subjects on the posttest, where, in the Training conditions, (3) and (4), in which the model explained her choices, objective subjects gave significantly more subjective responses than they did in the No-explanation conditions, (1) and (2). No sex differences in moral responding were observed. The author suggested that his results can be explained by a combination of Piaget's cognitive-developmental theory and a social-learning theory of moral judgment—if the alteration in subjective responding is considered as not necessarily a regression from the logical subjective level of responding but simply as a reactivation of a previously learned way of responding when the actions of an adult model have indicated that such an immature way of responding is socially appropriate. Cognitive structure, the author suggested, can be expanded through training, and thus objective subjects' moral judgment can be raised; however, objective-training experiences do not produce deterioration in subjective subjects' cognitive structure and moral level once it has been established.

EFFECT AREA(S): Moral Development/Judgment—reciprocity

TREATMENT(S): Role-playing
Reinforcement—operant discrimination
Discussion

Vance, B., Cropper, L., & Jensen, L. *The effects of training on reciprocity judgments in prekindergarten children*. Paper presented at Biennial Meeting of the Society for Research in Child Development, Philadelphia, Pa., 1973.

The study was concerned with training children in the reciprocity aspect of moral judgments. It was hypothesized that: (a) prekindergarten children trained to make mature responses to interpersonal conflict situations would make more mature judgments in illustrated story-conflict situations than would children not receiving training; (b) discussion and role-playing would produce more mature reciprocity judgments than would operant-discrimination training; and (c) there would be no sex differences in reciprocity judgments. Forty-three children aged 38 to 68 months (mean CA 56.2 months) were divided into four age groups and assigned randomly, by group, to three Experimental conditions: (a) Discussion and Role-taking Training in conflict situations; (b) Operant-discrimination Training of verbal solutions; and (c) Control—subjects received irrelevant stories and no training. On a posttest employing 10 conflict situations, children who had received training gave significantly more mature reciprocity responses than did the Control group; but, contrary to prediction, Operant Discrimination produced a significantly higher level of reciprocity-responding than did Discussion and Role-taking Training. No sex differences were found. The authors suggested that in Operant-discrimination Training, the children actually had more chance to learn appropriate verbal rules. They concluded the study with a discussion of Merrill and Bentwell's (1972) four-stage theory of cognitive development.

EFFECT AREA(S): Moral Development/Judgment—Piaget orientations of judgment

TREATMENT(S): Direct Training—moral-judgment stories, presentation varied
Reinforcement—verbal

Wudowsky, R. Experiences affecting the development of moral judgment. (Doctoral dissertation, Yeshiva University, 1971). (University Microfilms No. 71-14, 302)

The study contrasted the effectiveness of two training procedures (cognitive conflict and reinforcement) for the acquisition of intentionality (Piaget) in moral judgments. It was hypothesized that: (a) both treatments would increase the use of intentionality; and (b) training based on cognitive conflict would produce a more general or broader-based form of learning than would reinforcement training. Sixty-nine third-grade children were assigned to one of the following groups: (a) Cognitive Conflict—subjects listened to moral-judgment dilemmas in which the salience of solutions based on outcomes or intent was manipulated; (b) Reinforcement—subjects listened to moral dilemmas in which the salience of solutions was varied between those based on outcome and those based on intent; verbal approval was given to the subject for choice of a solution based on intent; and (c) Control—subjects listened to moral dilemmas presented in a fashion similar to the reinforcement group but received no reward for preferred solutions. Posttest results showed that subjects in both Treatment groups made more judgments using intentionality than did the Control group only when using items identical to those used in the treatment. It was decided that all three groups had actually experienced cognitive conflict during the experiment.

A second experiment was performed in which the author attempted to remove all cognitive conflict from the presentation of the dilemmas. A comparison of subjects who had and had not experienced Cognitive-conflict training showed that the former made more judgments using intentionality on items similar but not identical to those used in their training. Still, it was not clear from the study that Cognitive-conflict training produced a more general form of learning than did the Reinforcement treatment.

Citations of Studies Related to Moral Development/Judgment without True Training Effects

Chandler, M., Greenspan, S., & Barenboim, C. Judgments of intentionality in response to videotaped and verbally presented moral dilemmas: The medium is the message. Child Development, 1973a, 44, 315-320.
Manipulation—filmed/verbal presentation of Piaget story-pairs

REACTION TO TRANSGRESSION

DEFINITION: Reaction to Transgression—A class of responses (e.g., guilt, shame, reparation, self-criticism) to behavior—which the actor knows is wrong either intrinsically or because the behavior is prohibited.

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EFFECT AREA(S): Reaction to Transgression—self-criticism; reparation

TREATMENT(S): Direct Training
Reinforcement

Aronfreed, J. The effects of experimental socialization paradigms upon two moral responses to transgression. Journal of Abnormal and Social Psychology, 1963, 66(5), 437-448.

The experiment, designed to demonstrate the antecedents of two moral responses (self-criticism and reparation), investigated the effect of reinforcement on children's use of these responses.

Fifty-seven fifth-grade girls performed an experimental task which required pushing a doll off a board with toy soldiers. It was impossible to push the doll off the board without also knocking over some of the soldiers. The punishment for knocking over the soldiers was the loss of candy. Subjects participated in 10 trials of the task under one of two conditions: (a) High Cognitive Structure, High Control—the task was described to the subject in terms that set explicit standards for evaluation of aggressive behavior (knocking over the soldiers), and the subject was told to be as gentle and careful as possible; the subject evaluated her own behavior and punished herself by giving up as much candy as she felt her actions warranted; and (b) Low Cognitive Structure, Low Control—the experimenter provided only as much cognitive structure as was necessary to clarify the task and evaluated and punished the subject. On the eleventh trial of the task it was arranged to have the doll's leg break, and the subject's self-critical and reparative responses to the situation were elicited and recorded. As expected, both types of responses occurred more often in the condition of High Cognitive Structure, High Control than in the condition of Low Cognitive Structure, Low Control.

A second experiment was concerned with the independent effects of cognitive structure and control of punishment. Sixty-eight fifth-grade boys performed the experimental task under the following conditions: (a) High Cognitive Structure, High Control (same as above); (b) High Cognitive Structure, Low Control—explicit standards for behavior were set, and the experimenter controlled the punishment; (c) Low Cognitive Structure, High Control—minimal cognitive structure, and the subject controlled his own punishment; and (d) Low Cognitive Structure, Low Control—minimal cognitive structure, and the experimenter controlled the punishment. Reparative and self-critical responses were elicited as before. Results showed that self-critical responses occurred more often in the High-cognitive-structure conditions than in the Low-cognitive-structure conditions. Self-critical responses did not depend on the control of punishment. Reparative responses were affected by control over punishment, although significantly only in the High-cognitive-structure conditions.

The author suggested that self-criticism and reparation are not alternative or equivalent responses to transgression, and that one response does not act as a mediator for the other. He maintained that both responses are the outcome of distinct patterns of reinforcement, although they might be interwoven in child-rearing processes.

EFFECT AREA(S): Reaction to Transgression—self-criticism

TREATMENT(S): Direct Training
Reinforcement—nurturance

Aronfreed, J. A., Cutick, R. A., & Fagen, S. A. Cognitive structure, punishment, and nurturance in the experimental induction of self-criticism. Child Development, 1963, 34, 281-294.

In the study, self-criticism was conceptualized as a response to transgression acquired through aversive learning. The author theorized that a child adopts a socializing agent's critical evaluative responses (in regard to the child's behavior) in order to reduce the anxiety resulting from a transgression. Sixty fourth, fifth, and sixth graders participated in an experimental task for 10 training trials; the task required pushing a doll off a board without also knocking over toy soldiers on the board. Candy was taken away from the subjects as a punishment for knocking over the soldiers. (It was impossible not to knock over some soldiers.) The subjects carried out the task under one of the following conditions: (a) High Cognitive Structure, High Nurturance; (b) High Cognitive Structure, Low Nurturance; (c) Low Cognitive Structure, High Nurturance; and (d) Low Cognitive Structure, Low Nurturance. In the condition of High Cognitive Structure the experimenter set explicit evaluative standards for accomplishing the task, and in the condition of Low Cognitive Structure he did not. In the condition of High Nurturance the experimenter was friendly and solicitous, attempted to make the task easier by rearranging the soldiers, and gave the subjects extra candy. In the condition of Low Nurturance the experimenter was businesslike and aloof. During the eleventh trial of the task, the doll broke (as arranged), an event used to elicit self-critical responses from the subject. Results showed that self-criticism occurred more often under the condition of High Cognitive Structure than under Low Cognitive Structure, and this effect was independent of the level of nurturance. Nurturance had no direct effect on self-criticism. The author concluded that self-critical responses to transgression are not dependent on a nurturant context for self-punishment (as suggested by love-oriented theories of punishment) but require instead sufficient cognitive labeling of the transgression. The author discussed certain limitations apparent in the experimental findings.

EFFECT AREA(S): Reaction to Transgression—self-criticism; reparation
Altruism

TREATMENT(S): Reinforcement—punishment

DePalma, D. Effects of social class, moral orientation, and severity of punishment on boys' moral responses to transgression and generosity. Developmental Psychology, 1974, 10(6), 890-900.

The article reported two experiments concerned with the relationships among social class, moral orientation, punishment, and boys' moral responses to transgression. No hypotheses were stated.

One hundred twenty-eight boys aged 7.2 to 9.8 years (mean CA 8.4 years) were measured for moral orientation (based on Hoffman's, 1970, procedure) and classified by social class (determined by father's occupation and education). Subjects performed two identical phases (10 trials each) of a simple experimental task (Aronfreed, 1963) during which they received punishment for "carelessness" in overturning toy soldiers (the transgression). Punishment consisted of removal of candy according to one of four conditions: (a) Baseline—subjects punished themselves in Phases 1 and 2 by deciding how much candy to remove; (b) High Punishment—in Phase 1 the experimenter took away many Tootsie Rolls after each trial; (c) Medium Punishment—fewer Tootsie Rolls were removed; and (d) Low Punishment—only one or two Tootsie Rolls were confiscated. During Phase 2 all subjects administered their own punishment. Aronfreed's (1963) procedure was employed for eliciting self-critical and reparative responses after Trial 11 of Phase 2: after it appeared that subjects had broken the doll, they were asked twice what should be done. Subjects' responses were termed self-critical if they referred to their own behavior in breaking the doll, and reparative if they evidenced a realization that the effects of the transgression should be corrected "through his (the subject's) own resources for constructive actions." Self-critical responses were also recorded over the 10 training trials. It was found that the amount of punishment which subjects administered to themselves in Phase 2 was significantly different across conditions and related to the amount of punishment they had received in Phase 1. There were no significant main effects for the other variables (social class and moral orientation). Morally "rigid" subjects in the High-punishment condition punished themselves significantly more on each trial than did subjects whose moral orientation was "flexible" (Hoffman's, 1970 terms). On Trial 11 there was a significant difference in the number of "humanistic" (0%), "nonhumanistic" (50%), and "rigid" (25%) subjects who assumed responsibility for breaking the doll, but more Humanistic subjects (100%) suggested fixing the doll than did Nonhumanistic (58%) or Rigid (69%) subjects (author's refinement of Hoffman's, 1970, terms). The author speculated that subjects may have internalized (punishment) standards from the punishment they received in Phase 1 and employed them in punishing themselves in Phase 2. He also suggested, after a further examination of the data (reported in the Discussion section), that Humanistic-flexible subjects possessed more mature and internalized moral orientations than either Rigid or Nonhumanistic-flexible subjects.

In Experiment 2 it was hypothesized that a subject's social class, his moral orientation, and the amount of punishment he received would affect his donating behavior. Sixty-four second- and third-grade boys were given the same measures and experimental procedure as in Experiment 1 and were then given an opportunity to donate candy to "needy children." Subjects who had received High Punishment donated significantly more candy than did subjects who had received Low Punishment or Medium Punishment. Humanistic-flexible subjects gave away significantly more candy than did Non-humanistic-flexible or Rigid subjects, and Humanistic-flexible subjects' giving varied less according to the amount of punishment they received than did that of other subjects. The author suggested that Humanistic-flexible subjects were responding to an internalized norm of altruism, whereas other subjects were responding to nonmoral affects and motives (such as guilt, need for approval) aroused by the punishment situation.

REASONING AND JUDGMENT

Because of the few studies in this Effect Area, a formal definition has been omitted.

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EFFECT AREA(S): Reasoning and Judgment

TREATMENT(S): Direct Training—increasing understanding of social causality

Battisti, R. Some effects of a "causal" human behavior program on certain personal and social attitudes of elementary school age children. *Dissertation Abstracts International*, 1974, *35*(4), 1971-1972-A.

The study was concerned with the effect of training in "causal understanding" of social behavior upon subjects' personal and social attitudes (further details not specified in the source). The source did not list the hypotheses. Ten classes in grades 1-5 were taught Ojemann's "causal approach" to learning and were given the opportunity to tutor students in this method; five other classes served as a Control group. Pre- and posttraining comparisons using personality tests and sociometric indices revealed that the training had little effect on subjects' attitudes but did significantly increase their understanding of causal patterns that occur in social behavior.

Citations of Abstracts Dealing with Reasoning and Judgment Which Appear in Full under Another Effect Area

Jonas, H. *A study of the relationship of certain behaviors of children to emotional needs, values, and thinking*. (Doctoral dissertation, New York University, 1960). (University Microfilms No. 61-371) (p. 146)

Machnits, J. *A study of the relationship of certain behaviors of children to emotional needs, values, and thinking*. (Doctoral dissertation, New York University, 1960). (University Microfilms No. 61-375) (p. 147)

Martin, D. *A study of the relationships of certain behaviors of children to emotional needs, values, and thinking*. (Doctoral dissertation, New York University, 1960). (University Microfilms No. 61-338) (p. 147)

RESISTANCE TO TEMPTATION

DEFINITION: Resistance to Temptation—Not doing something one desires to do; not performing a socially disapproved class of responses (e.g., stealing, lying, cheating, and disobedience of prohibitions) when perceived chance of detection and/or punishment are small.

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EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Reinforcement—timing of punishment varied

Aronfreed, J., & Reber, A. Internalized behavioral suppression and the timing of social punishment. Journal of Personality and Social Pyschology, 1965, 1(1), 3-15.

The study presented a two-stage aversive-conditioning theory of the acquisition of internalized suppression behavior. It was hypothesized that since suppression of punished responses is motivated by reduction of the anxiety associated with the response-produced and representative cues of a transgression, punishment which occurs before the transgression is committed would be more effective in producing suppression of the transgression than would punishment which occurred during the transgression. Eighty-eight boys in the fourth and fifth grades were told they could choose one of two toys and then describe it to the experimenter. Subjects were placed in one of three conditions: (a) Early Punishment—punishment occurred as the child reached for the prohibited toy; (b) Late Punishment—punishment occurred several seconds after the child had picked up the prohibited toy; and (c) Control—children were prohibited from touching either toy but were not punished. Subjects were given nine trials of suppression training involving punishment for choosing the more-attractive toy of a pair; punishment consisted of mild censure by the experimenter and loss of the opportunity to describe the toy. On the tenth trial, children were tested for suppression of the prohibited response. Children who in the Early-punishment condition touched the attractive toy in Trial 10 significantly less often than did either children in the Late-punishment condition or the Controls, between whom there was little difference in suppression. Early-punishment children also committed significantly fewer transgressions during training than did Late-punishment children and Controls. The authors concluded that mild punishment administered early is a more effective way of teaching children to refrain from undesired responses than is late punishment or mere verbal explanation. They pointed out, however, that in a natural social setting various factors combine to lessen the significance of timing of punishment in the acquisition of suppression behavior, so that children learn to inhibit responses even when punishment follows a transgression. Also, they stated, positive reward (as well as punishment) is important in teaching children to suppress undesirable responses, and perhaps the crucial factor in suppression training is parents' use of verbal cues.

EFFECT AREA(S): Resistance to Temptation—conformity to values; cheating

TREATMENT(S): Direct Training—sex of trainer and trainer-attention varied

Burton, R., Allinsmith, W., & Maccoby, E. Resistance to temptation in relation to sex of child, sex of experimenter, and withdrawal of attention. Journal of Personality and Social Psychology, 1966, 3(3), 253-258.

The study theorized that girls' identification with their mother is stronger than boys' identification with their father, since boys must shift their identification from their mother to their father, whereas girls' identification remains constant from birth. Therefore, it was hypothesized that: (a) girls would conform to standards established by an adult experimenter more than would boys; (b) a female experimenter would produce more conformity in both sexes than would a male experimenter (for pre-Oedipal-resolution children); and (c) interrupted experimenter attention would produce greater identification with the experimenter and thus greater following of his/her rules than would continuous experimenter attention (since withdrawal of attention produces dependency anxiety which would be reduced by further identification). One hundred twelve 4-year-olds were taught the rules of a simple throwing game by either a same-sex or opposite-sex experimenter. The conditions were: (a) Continuous Attention—subjects received constant, nurturant attention from the experimenter as he explained the rules of the game; and (b) Interrupted Attention—the experimenter performed an irrelevant task during part of the explanation period. Thus the experimental design was a 2 x 2 factorial, with sex of experimenter and type of attention varied. Subjects then played the game alone and were observed for cheating. For both sexes, significantly more cheating occurred with a same-sex than with an opposite-sex trainer; girls conformed to the rules no more than did boys; and a female experimenter produced no greater conformity than did a male experimenter. Continuous Attention produced less cheating for boys than did Interrupted Attention. Revising their theoretical ideas post hoc, the authors suggested that 4-year-olds might in fact be influenced toward conformity more by an opposite-sex teacher because of their yet unresolved Oedipal attachment to their opposite-sex parent; children, they suggested, attempt to please opposite-sex adults through conforming to rules (and same-sex adults through achievement [winning]). The effect of withdrawal of attention, the authors speculated, may be different depending on which motive (conformity or achievement) is involved and on the sex of the experimenter and the subject.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Reinforcement—timing of punishment varied

Chandler, T. Transgression as a function of timing of punishment and age. Genetic Psychology Monographs, 1974, 89(1), 3-23.

The study tested Mowrer's (1960) theory that the arousal of anticipatory anxiety connected with a previously punished act is what prevents the act's recurrence. It was hypothesized that: (a) punishment initiated early in the response sequence of a prohibited act would be more effective in preventing the act's recurrence than would punishment administered later in the sequence; and (b) the older the child, the more effective punishment would be in inhibiting transgression. Sixty fourth- and fifth-grade boys and 60 first- and second-grade boys were divided among three conditions: (a) Punishment at initiation of a transgression, (b) Punishment at Completion of a transgression, and (c) Control. Subjects were shown pairs of toys and were told to choose one to play with. Whenever they chose the more attractive toy (attractiveness was determined by the author), they were told, "No, that is for the younger/older children," either immediately after picking the toy up, Condition (a), or several seconds after that, Condition (b). Control subjects were punished for choosing the attractive toy and were not allowed to pick it up (this condition replicated the Early-punishment condition of Aronfreed and Reber's, 1965, study). On the tenth trial a new pair of objects was left in front of the child as the experimenter left the room. Transgression was defined as a subject's moving the attractive object (an hour-glass timer). Significantly more younger than older subjects transgressed. Punishment condition did not have a differential effect on transgression. The author offered several possibilities to explain the failure of his primary hypothesis to be confirmed, including the fact that the delay in Condition (b) was not long enough; the fact that subjects undoubtedly had differing reinforcement histories (type and severity of parental punishment); and the possibility that the mild verbal punishment employed did not arouse sufficient anticipatory anxiety. He also suggested that the age difference in transgression reflected differences in development of the cognitive capacities which mediate avoidance of transgression.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Reinforcement—reward and punishment varied

Dougherty, E. H. The effects of reward and punishment interactions on the development of resistance to transgression in children. Dissertation Abstracts International, 1974, 34(11), 5707-B.

The study concerned the effects of various training conditions on the development of resistance to transgression. The author theorized that by inducing a subject to respond to an alternative that was less attractive than the initial object, resistance to temptation could be increased. No specific hypothesis was stated in the source. One hundred twenty-eight first-grade subjects were assigned to conditions which varied: (a) type of punishment (either Withdrawal of Reward or Verbal Reprimand), and (b) reward level (one of three unspecified levels of reward or No Reward). Subjects received punishment when they touched the more-attractive toy of a pair during five training trials. Reward was contingent upon touching the less-attractive toy of a pair during the training trials. Contrary to expectations, neither type of punishment was significantly more effective than the other in increasing resistance to temptation, and reward for alternative responses did not decrease transgression. Resistance to temptation was described as a function of specific interactions of the training variables.

EFFECT AREA(S): Resistance to Temptation–cheating

TREATMENT(S): Attitudinal/Affective Manipulation–public affirmation
Direct Training
Reinforcement–threat of punishment

Fisher, C. T. Levels of cheating under conditions of informative appeal to honesty, public affirmation of value, and threats of punishment. The Journal of Educational Research, 1970, 64(1), 12-16.

The study explored the effects on cheating behavior in the classroom of: (a) arousal of a positive value of not cheating, and (b) punishment for cheating. No hypothesis was offered. One hundred thirty-five fourth, fifth and sixth graders took a general achievement test; an opportunity to cheat was provided through the use of an answer sheet. Subjects were informed that the use of the answer sheet or the change of answers during a self-scoring procedure constituted cheating. Subjects were assigned to one of the following conditions: (a) Control–no additional directions were given; (b) Informative Appeal to Honesty–subjects were informed of the importance of obtaining a true measure of their knowledge; (c) Public Affirmation of Value–after a discussion of honesty, subjects had the chance to state to the group their reasons for not cheating; (d) Value-relevant Threat of Punishment–subjects were told they would have to write a sentence pertaining to cheating 50 times if they cheated; and (e) Non-value-relevant Threat of Punishment–subjects were told they would have to write a set of numbers 25 times if they cheated. Cheating was measured by the use of provided answers to the test items that had no correct answer. Results showed that: (a) 65% of the Control group cheated; (b) a similar percentage in the Informative-appeal-to-honesty condition made use of provided answers; and (c) subjects in the Public-affirmation-of-value, Value-relevant-threat-of-punishment, and Non-value-relevant-threat-of-punishment conditions, with similar levels of cheating, cheated significantly less than did the Control and Informative-appeal-to-honesty conditions. Only 6 of 86 cheaters admitted they had done so. The author suggests that public affirmation is the preferred method to reduce cheating in the classroom, since it encourages the child to adopt the value of honesty and eliminates the need for a punishment system. The author acknowledged that the experiment did not identify the critical components of the Public affirmation or Threat-of-punishment conditions.

EFFECT AREA(S): Resistance to Temptation—rule-following behavior

TREATMENT(S): Modeling

Freed, A., Chandler, P., Blake, R., & Mouton, J. Stimulus and background factors in sign violation. Journal of Personality, 1955, 23, 499.

The study hypothesized that violation of a sign which detoured entrance to a building from a main to an inconvenient side door would depend upon: (a) implied strength of the sign's prohibition, and (b) behavior of a model in regard to the sign. Ninety subjects were assigned to nine conditions in which strength of prohibition (high, medium, low) and model's behavior (model absent, model conformity to sign, model violating prohibition) were varied factorially. The summary reports that "the results indicate clearly that sign violation is a function both of strength of sign and social pressure."

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Verbalization—response consequences or prohibition instructions verbalized

Hartig, M., & Kanfer, F. The role of verbal self-instructions in children's resistance to temptation. Journal of Personality and Social Psychology, 1973, 25(2), 259-267.

The study was concerned with the role of self-verbalization in mediating the inhibition of prohibited responses. It was hypothesized that: (a) verbalizations relevant to the prohibited behavior or to the outcome of performing the behavior would result in greater resistance to temptation than would irrelevant verbalizations; and (b) verbalization of positive and negative consequences of the prohibited response would have different effects. Two hundred seventy-five children aged 40 to 88 months (mean CA 65.8 months) were placed in one of five Experimental conditions: (a) Positive Verbalization—self-verbalization consisted of repeating positive consequences of resisting temptation; (b) Negative Verbalization—negative consequences were repeated; (c) Verbalization—instructions to prohibit the response were repeated; (d) Verbalization Control—subjects recited an irrelevant nursery rhyme; and (e) No-verbalization Control—subjects employed no verbalization whatsoever. In addition, subjects were divided into younger (mean CA 53.9 months) and older (mean CA 76.6 months) groups and according to sex; thus the experimental design was a 5 x 2 x 2 factorial. The temptation situation involved the child's not turning to look at toys which had been placed behind his back while he repeated the self-control verbalization. Children who verbalized waited significantly longer before yielding to temptation than did children who did not verbalize. Older children who recited a nursery rhyme (irrelevant verbalization) yielded to temptation significantly more than did older children whose verbalization was relevant to self-control, but for younger children there was no difference in resistance to temptation between relevant and irrelevant verbalizers. No significant differences in resistance to temptation occurred among the three relevant verbalization groups. About half of the Experimental subjects did not actually verbalize their self-instructions out loud; younger children who did not verbalize overtly showed significantly less resistance to temptation than did younger children who did verbalize, but this difference was not present for older children. Boys and girls reacted no differently to the treatments. The authors concluded that it was not possible to determine from their results whether verbal mediation increased resistance to temptation by (a) reducing punishment anxiety, (b) increasing tolerance for delay of reward, or (c) both.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Reinforcement–punishment; reward;
empathy-dependent reward

Jensen, L., & Buhanan, K. Resistance to temptation following three types of motivational instructions among four-, six-, and eight-year old female children. The Journal of Genetic Psychology, 1974, 125(1), 51-59.

The study was concerned with the effect of various types of sanctions upon resistance to temptation. It was hypothesized that: (a) fear of punishment would be most effective in producing resistance to temptation in 4-year-olds; (b) a promised reward would be most effective for 6-year-olds; and (c) empathy-oriented instruction would be most effective for 8-year-olds. Thirty preschool (mea[illegible] 3.98 years), 30 kindergarten (mean CA 6.01 years), and 30 second-grade (mea[illegible] 8.09 years) girls were placed in a resistance-to-temptation situation according to one of three conditions: (a) Fear of Punishment–the experimenter told the children that "something very bad" would happen to them if they played with toys while being left alone in a room; (b) Promised Reward–the children were promised "something very good" if they refrained from playing with the toys; and (c) Empathy-oriented Instruction–the experimenter said she would be "very happy" if the children resisted temptation. All three conditions were effective in producing resistance to temptation as determined from base levels of deviation obtained from other studies. Although the differences were not always significant, Fear of Punishment usually produced the least deviation in 4-year-olds, Promised Reward in 6-year-olds, and Empathy-oriented Instruction in 8-year-olds. Fear of Punishment produced the lowest deviation for the groups combined.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Verbalization—presence of external control varied

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Kanfer, F., & Zich, J. Self-control training: The effects of external control on children's resistance to temptation. Developmental Psychology, 1974, 10(1), 108-115.

The study was concerned with the effect of self-control training upon resistance to temptation. It was hypothesized that: (a) self-control training that provided the subject with a verbal controlling response would be more effective than training that did not provide such a response; and (b) resistance to temptation during a later test would be greater when external control (in the form of the experimenter) had been absent during previous training than when it had been present. Forty-two boys and 42 girls aged 58 to 75 months were assigned to the following conditions: (a) Subjects' Voices (tape-recorded) were used to present the verbal controlling response, Experimenter Present; (b) Subject's Voice, Experimenter Absent; (c) Experimenter's Voice, Experimenter Present; (d) Experimenter's Voice, Experimenter Absent; (e) No Voice, Experimenter Present (Control); and (f) No Voice, Experimenter Absent (Control). Subjects were placed in a room and instructed not to look at toys placed behind their backs. Then, while the experimenter either read or left the room, a tape reminded the child of the benefits of resisting temptation (this constituted training). Next, a second test situation was created in which resistance to temptation was measured in the absence of verbal taped responses. For groups which had received Experimenter-absent training (b) and (d), the use of both the Subject's Voice and the Experimenter's Voice resulted in greater resistance to temptation than occurred in the Control condition (f), but in the Experimenter-present condition (a) and (c), only use of the Subject's Voice (a) resulted in greater resistance to temptation than occurred in the Control condition (e). The authors thus concluded that too much external control can interfere with the acquisition of self-control, but that self-control can definitely be acquired through training.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Direct Training

LaVoie, J. C. Cognitive determinants of resistance to deviation in seven, nine and eleven year old children of low and high maturity of moral judgment. Developmental Psychology, 1974, 10(3), 393-403.

The study investigated the effects of a rationale (i.e., reasoning that legitimizes the inhibition of a response) on resistance to deviation. The author identified two component parts of a rationale: (a) rationale focus—the central theme, and (b) rationale orientation—the direction of the rationale with respect to whom or what. It was hypothesized that: (a) a rationale for resistance to deviation would be more effective for girls than for boys; (b) a rationale focused on intent would decrease deviation for all age groups; (c) a person-oriented rationale would be more effective for girls than for boys; and (d) children of high moral maturity would be less deviant than children of low moral maturity when tested for resistance to temptation. One hundred twenty-seven 9- and 11-year-olds chose one toy to play with (the preferred toy) from a pair of toys. Subjects were randomly assigned to a Rationale condition in which a rationale was given by the experimenter explaining why the subject could not play with the chosen toy. The Rationale conditions included: (a) Consequence Focus, Object Orientation; (b) Intention Focus, Object Orientation; (c) Consequence Focus, Person Orientation; and (d) Intention Focus, Person Orientation. The categorization of the rationales was explained by the author as follows: (a) Consequence Focus—a possible result of deviation; (b) Intention Focus—motivation for deviation; (c) Object Orientation—emphasis on a particular thing, usually material; and (d) Person Orientation—emphasis on the effect of deviance on one's self or another person. As expected, girls deviated less than boys, and deviation for both sexes decreased significantly across age groups for latency of response; however, a nonsignificant effect was present for frequency and duration of deviation. Response inhibition was greatest when Intention-focused and Person-oriented rationales were used. Age and sex interacted significantly with rationale focus and orientation: Person-oriented rationales were more effective with older than with younger children; the effect was more noticeable for girls than for boys; and Object-oriented rationales increased in effectiveness with age for girls but not for boys. Subjects who had higher levels of moral judgment deviated less often than did subjects with lower levels of moral judgment. Boys were significantly more likely to confess to deviations than girls, and 9-year-olds were more likely to confess than 11-year-olds. The author used both cognitive-developmental and social-learning theories to interpret the results.

EFFECT AREA(S):	Resistance to Temptation
TREATMENT(S):	Direct Training—induction Reinforcement—punishment

Leizer, J. Acquisition and resistance to temptation as a function of method of discipline, timing of punishment, and immediacy of the test for resistance to temptation. (Doctoral dissertation, University of South Carolina, 1973). (University Microfilms No. 74-5389)

The study was concerned with the effect of different methods of discipline on children's resistance to temptation. Resistance to temptation produced by induction methods (provision of explanations and reasons for resisting temptation) was compared with that produced by sensitization methods (here, verbal punishment); within the induction condition, resistance to temptation produced by provision of cognitive cues to structure the discipline situation was compared with that produced by provision of moral reasons for not transgressing. It was hypothesized that cognitive structuring (provision of a logical reason for not choosing a particular toy) would result in greater resistance to temptation than would provision of a moral reason. Sixty first- and second-grade boys aged 6 to 8 years were placed in one of six Treatment conditions which paired: (a) three methods of discipline: (1) Induction, Cognitive Structuring; (2) Induction, Moral Reason; and (3) Verbal Reproach with (b) two conditions of timing of discipline: (1) Delayed, and (2) Immediate. Children were forbidden to play with one toy of a pair; transgression was defined as touching the forbidden toy. Induction methods produced significantly greater resistance to temptation than did Verbal Reproach. Timing of discipline did not have a differential effect on transgression. The author concluded that since the simplicity of the experimental task probably allowed subjects to use cognitive structuring in each condition, the superiority of induction techniques must have been due to the provision of a moral reason for resisting temptation.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Reinforcement—threat
Attitudinal/Affective Manipulation—effect of initial compliance

Lepper, M. Dissonance, self-perception, and honesty in children. Journal of Personality and Social Psychology, 1973, 25(1), 65-74.

The study applied Freedman and Fraser's (1966) "foot-in-the-door" effect (observed in compliance studies) to behavior in a resistance-to-temptation situation. The author hypothesized that: (a) subjects who initially resisted temptation under conditions of mild threat would show greater resistance to temptation in a subsequent situation than would subjects initially exposed to severe threat or Controls; and (b) subjects who, because they had been told that their peers also liked a forbidden toy, theoretically could not devalue the toy and would show greater subsequent resistance to temptation than would subjects for whom this "attitude stabilizing" information had not been provided. One hundred twenty-nine second graders (mean CA 7.5 years) ranked toys for preference. Half were told that their peers had ranked highly the same toys they had (the attitude-stabilization manipulation). Subjects were then exposed to a resistance-to-temptation situation in which they were induced not to play with their preferred toy under conditions of either: (a) Mild Threat—the experimenter said he would be annoyed if the child played with the toy; or (b) Severe Threat—the experimenter said he would be very upset. A (c) Control group was not exposed to the initial resistance-to-temptation situation. Subjects were then asked to rerank the toys, and half the subjects received measures of self-perceived honesty. Three weeks later subjects were exposed to a second resistance-to-temptation situation in which they could cheat by falsifying their score on a marble-bowling game. (Thus the design was a 2 x 3 x 2 factorial with attitude stabilization, threat, and presence/absence of the self-perception measure varied.) Subjects in the Mild-threat condition derogated the forbidden toy significantly more than did other subjects (the effect predicted by cognitive-dissonance theory, cf. Aronson, 1966), but the attitude-stabilization manipulation effectively inhibited this derogation. Subjects in the Mild-threat conditions showed significantly greater resistance to temptation in the marble-bowling game than did other subjects, and Controls showed significantly more resistance to temptation than did Severe-threat subjects. Subjects in the Mild-threat conditions perceived themselves as significantly more honest than did other subjects, supporting the author's theory that subjects who comply (here, resist temptation) under "low justification" (mild threat) change their self-perception to explain their action, and that this change results in increased compliance (e.g., resistance to temptation) in the future (although the negative correlation between derogation of the forbidden toy and subsequent resistance to temptation which the author predicted in Hypothesis (b) did not occur). The author concluded that "moral training involving minimally sufficient pressure will, in the long run, prove more affective than a strategy involving more powerful, but effectively unnecessary, pressure."

EFFECT AREA(S): Resistance to Temptation—rule-following behavior

TREATMENT(S): Verbalization

Monahan, J., & O'Leary, K. D. Effects of self-instruction on rule-following behavior. Psychological Reports, 1971, 29, 1059-1066.

The article presented two studies concerned with the effect of verbal self-instruction on resistance to temptation, or, more precisely, suppression of "immoral" behavior (defined as behavior which leads to immediate positive consequences but may also lead to future negative consequences). It was hypothesized in the first study that: (a) verbal self-instruction would lead to greater control of behavior (and thus greater resistance to temptation) than would no self-instruction; and (b) the longer the interval between presentation of the stimulus on a discrimination responding task and the opportunity to respond, the less effective self-instruction would be in facilitating resistance to temptation. Forty-eight white kindergarten and first-grade boys from the rural Midwest were instructed to press a button for a reward only when the correct stimulus appeared on a screen and to refrain from pressing when incorrect stimuli were present, even though in such circumstances a press yielded a reward. All subjects were given self-instruction training on the task; self-instruction (verbal) involved subjects' repeating to themselves whether or not they should respond during the interval between the presentation of the stimulus and the opportunity to respond. Subjects were then placed in one of three conditions: (a) Verbal Self-instruction, Long Delay—subjects were told to use verbal self-instruction during subsequent performance of the task, and the interval between stimulus presentation and opportunity to respond was 9 seconds; (b) Verbal Self-instruction, Short Delay—as in (a), but the interval was less than 1 second; and (c) Control—subjects were not told to use verbal self-instruction during the task. Subjects who used verbal self-instruction resisted the temptation to respond immorally significantly more strongly than did Controls. Self-instructional subjects achieved a high degree of correct verbalization. The length of the interval between stimulus presentation and opportunity to respond did not have a differential effect on cheating or on correctness of verbalization. A second study employed a sample of black urban first graders. Sixty-one boys were trained to self-instruct themselves on the Study 1 task and then placed in one of three conditions: (a) subjects performed 16 trials of the task, using self-instruction; (b) subjects performed 8 trials, using self-instruction; and (c) subjects received no task-training. Finally, all subjects performed the task alone, with no instructions as to whether or not to use self-instruction. There were no differences in resisting the temptation to perform the prohibited response among the three groups; however, Controls cheated significantly more often in a way unrelated to self-instruction—by taking too much time. The authors suggested that had this new way of cheating not been available, Controls might not have resisted the temptation to perform the immoral response as well as did Self-instructing subjects.

EFFECT AREA(S): Resistance to Temptation—rule-breaking behavior

TREATMENT(S): Verbalization

O'Leary, K. D. The effects of self-instruction on immoral behavior. *Journal of Experimental Child Psychology,* 1968, *2*, 297-301.

The study hypothesized that subjects who instructed themselves verbally when and when not to respond on a visual-discrimination task would make fewer "immoral" (knowingly incorrect) responses than would subjects who did not use self-instruction. Forty-eight first-grade boys learned and performed a task which required them to respond only when the correct stimulus appeared on a screen; indiscriminate responding to obtain a reward was possible but was considered cheating. Subjects were placed in one of four conditions: (a) Self-instruction, Visual and Verbal Training—during training discrimination stimuli were presented both visually and verbally, and during performance subjects used self-instruction; (b) Self-instruction, Verbal Training; (c) No Self-instruction, Visual and Verbal Training; and (d) No Self-instruction, Verbal Training. The manner of training had no effect on resistance to temptation, but subjects who verbalized whether they should or should not respond cheated significantly less often than did subjects who did not give themselves self-instruction.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Modeling—yielding model; resisting model

Rosenkoetter, L. I. Inhibitory and disinhibitory effects of models. *Developmental Psychology,* 1973, *8*(1), 80-84.

The author sought to test Hoffman's (1970) conclusion from his study on moral development that models were ineffective as agents of inhibition. It was hypothesized: (a) that the observation of resisting models would not deter yielding to temptation;

and (b) that the observation of a yielding model would result in a greater number of deviations than would no model. Forty-eight third and fourth graders performed a task at a film-monitor which was placed so that the subjects could not see a filmed cartoon in another part of the room. The following conditions were varied: (a) Yielding Model—model left the film-monitor to look at the cartoon; (b) Resisting Model—model sat continuously in front of the film-monitor; and (c) No-model Control. Measures used to analyze the modeling effects included: (a) latency (time to first deviation), (b) total duration (total time away from the film monitor), and (c) frequency (number of times the subject left his chair). As hypothesized, subjects who were in the Yielding-model condition deviated more (as measured by latency, frequency, and total duration) than subjects in the No-model condition; subjects who saw a Resisting Model deviated less than those in the No-model condition. Female subjects showed significantly greater resistance to temptation on all dependent measures than did male subjects. The author concluded that the results of the experiment failed to confirm Hoffman's hypothesis because the Resisting-model condition was marginally effective; this finding suggests the presence of an inhibitory effect. The author implied that the inhibitory effects of a model are less pronounced than the disinhibitory effects, an interpretation which challenges theories of imitative learning.

EFFECT AREA(S): Resistance to Temptation—rule-following behavior

TREATMENT(S): Modeling—deviant model; nondeviant model

Ross, S. The effect of deviant and nondeviant models on the behavior of preschool children in a temptation situation. (Doctoral dissertation, Stanford University, 1962). (University Microfilms No. 63-2741)

The study hypothesized that children who observed a model deviate from the experimenter's instructions in a play situation would: (a) yield to the temptation to break the rules more frequently; and (b) experience more conflict over their decision to obey or disobey than would children who observed a nondeviant or a nonperforming model. Forty-eight preschool children (age not specified) were left with a same-sex peer model in a room full of toys, with bags in which the toys could be hidden. The model explained that the rules specified that only one toy be chosen. Subjects were placed in one of three conditions: (a) Nondeviant Model—the model, after explaining the rules, took one toy as stipulated; (b) Deviant Model—the model took three toys without being caught; and (c) Control—the model deferred his/her decision until after the subject made his/hers. Children in the Deviant-model condition yielded to temptation significantly more often (and showed significantly more behavioral and verbal signs of conflict) than did children who saw a Nondeviant Model or Controls.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Modeling—yielding model; resisting model

Stein, A. H. Imitation of resistance to temptation. Child Development, 1967, 38, 157-169.

The social-learning theory of Bandura and Walters (1963) was used to make the following hypotheses about the effects of modeling on resistance to temptation: (a) subjects who observed a yielding model would show less resistance to temptation than would a No-model Control group; (b) subjects who observed a resisting model would show more resistance to temptation than would a No-model Control group; and (c) subjects who saw a resisting model that was also engaged in a prosocial task would show more resistance to temptation than would those who saw an idle resisting model. On the basis of the identification theory (Sears, Maccoby, & Levin, 1957), it was also hypothesized that (d) resistance to temptation would correlate with high guilt levels or internalization as measured by the author's Moral Behavior Questionnaire. Eighty-four fourth-grade boys (mean CA 9 years—11 months) from two schools were asked to perform a nonstimulating film-editing task in a position from which they could not view an intrinsically interesting movie. The following conditions were varied: (a) Resisting Model, Reinforced Prosocial Activity—on a suggestion from the experimenter, the model helped the subject sort some cards while the model was performing the film-editing task; the model did not look at the movie; the experimenter thanked the model when the latter was finished sorting the cards; (b) Resisting Model, Nonreinforced Prosocial Activity—although the experimenter did not mention the cards, the model sorted them while also performing the film-editing task without leaving the model's chair to look at the movie; (c) Resisting Idle Model—the model performed the film-editing task without looking at the movie; (d) Yielding Model—the model left his film-editing task to watch the movie; (e) No-model Control—instructions about the task were given by the experimenter. Results showed that, as expected, subjects in the Yielding-model condition generally showed less resistance to temptation than did subjects in the other conditions. There was no confirmation of hypotheses: (b) that subjects who saw a Resisting Model would show more resistance to temptation than would those in the No-model Control group (explained partially by a ceiling effect created by a high level of resistance to temptation in the No-model Control condition); and (c) that a Resisting Model engaged in a prosocial activity (either reinforced or nonreinforced) would elicit more resistance to temptation than an Idle Model. There were no significant correlations between internalizations and resistance to temptation. Significant differences between subjects from the two schools were found on all measures: subjects in one school showed more resistance to temptation than did subjects in the other school. Subjects in the first school also gave more conforming responses on the Moral Behavior Questionnaire than did subjects in the second school. The author suggested caution in interpreting data in the area of resistance to temptation, especially when it is gathered from a population representing only one school.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Modeling—filmed peer model; reinforcement varied

Walters, R. H., & Parke, R. D. Influence of response consequences to a social model on resistance to deviation. *Journal of Experimental Child Psychology*, 1964, *1*, 269-280.

The study was an extension of the experimental work of Walters, Leat, and Menzer (1963) on *resistance to deviation* (i.e., playing with prohibited toys) after viewing (a) a model that was rewarded for such behavior, (b) a model that was punished, and (c) no model. In the present study, a fourth group was added in which the subjects viewed a filmed model who deviated without consequence to himself. The authors hypothesized that the absence of punishment would serve as a vicariously experienced reward and would increase the number of deviations. Eighty-five boys (CA 5 years—11 months) were randomly assigned to one of four Experimental groups: (a) Model Punished—subjects saw a filmed peer model punished for playing with prohibited toys; (b) Model Rewarded—subjects saw a filmed peer model rewarded for playing with prohibited toys; (c) Model, No Consequence—subjects saw a filmed peer model receive neither reward nor punishment for playing with prohibited toys; and (d) No-model Control. After the treatment the children were observed to see if they played with the prohibited toys. Subjects in the Model-rewarded and Model, No-consequence conditions deviated readily, as predicted, with no significant differences between the two groups. Subjects in the Model-punished and No-model groups did not deviate to a significant level. When the prohibition on playing with the toys was removed, subjects in the Model-punished condition deviated as much as did subjects in the other Modeling conditions.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Reinforcement—timing of punishment varied
Modeling—filmed peer model; reinforcement varied

Walters, R. H., Parke, R. D., & Cane, V. A. Timing of punishment and the observation of consequences to others as determinants of response inhibition. *Journal of Experimental Child Psychology*, 1965, *2*, 10-30.

The study explored the role of punishment in resistance to temptation. It was hypothesized that: (a) children who received punishment as they began to deviate (playing with prohibited toys) would subsequently show greater resistance to deviation than would children who were punished after they deviated; and (b) children who observed a model punished for his deviation would show a greater resistance to deviation than would those who saw a model rewarded or not punished. Eighty kindergarten and first-grade boys received either: (a) Early Punishment (as soon as they deviated), or

(b) Late Punishment (after they deviated) while playing with prohibited toys. After the training they were assigned to one of the following conditions: (c) Model Punished—a filmed peer model was punished after playing with prohibited toys; (d) Model Rewarded—the model was rewarded after playing with prohibited toys; (e) Model, No Consequence; and (f) No-film Control. As expected, subjects in the Early-punishment condition showed more resistance to deviation than did those in the Late-punishment condition, and subjects in the Model-punished group showed greater resistance to temptation than did those in the other Modeling or Control conditions. The most effective condition was the combination of Early-punishment training and observation of Model Punished: half of the subjects did not deviate, and no subject deviated more than twice. A problem-solving posttest, whose solution had been demonstrated by the model, was administered; results showed that subjects who had not seen the Model Punished did better than those who had seen her punished, but not significantly better than the subjects in the Control group. These findings, the authors concluded, have implications for the socialization of children.

EFFECT AREA(S): Resistance to Temptation

TREATMENT(S): Modeling—deviant model; conforming model

Wolf, T. The effects of multiple modeling on resistance to deviation. Paper delivered at the Biennial Meeting of the Society for Research in Child Development, Santa Monica, Calif., 1969.

The study dealt with the effect of peer models' rule-following behavior upon subjects' own resistance to temptation. It was hypothesized that the subjects would adhere most strictly to the rules when models adhered to the rules. Sixty-four first-, second-, and third-grade boys were assigned to one of four Treatment conditions: (a) Two Rule-following Models—neither model played with the forbidden toy; (b) Two Deviant Models—both models played with the forbidden toy; (c) Model 1 Rule-following, Model 2 Deviant; and (d) Model 2 Rule-following, Model 1 Deviant. Subjects entered a room containing two toys and were told they could not play with (a particular) one of them, the experimenter left, and subjects watched films of their models while the experimenter observed their deviation. Subjects who observed Two Rule-following Models resisted temptation significantly more often and for significantly longer periods than did the other subjects. Subjects who saw discrepant models, Conditions (c) and (d), deviated less than did subjects whose models both deviated, but the difference was not significant.

Citations of Studies Related to Resistance to Temptation without True Training Effects

Dmitruk, V. Intangible motivation and resistance to temptation. The Journal of Genetic Psychology, 1973, 123(1), 47-53.
Manipulation—experimenter warmth; competitive set

Graf, R. Induced self-esteem as a determinant of behavior. The Journal of Social Psychology, 1971, 85, 213-217.
Manipulation—induced self-esteem

Parke, R. D. Nurturance, nurturance withdrawal and resistance to deviation. Child Development, 1967, 38, 1101-1110.
Manipulation—intermittent/continuous social reinforcement

Seeman, G. Delay of gratification choice as a function of unrelated success or failure. Dissertation Abstracts International, 1974, 35(2), 1062-1063-B.
Manipulation—experience of success or failure

RISK-TAKING

Because of the few studies in this Effect Area, a formal definition has been omitted.

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EFFECT AREA(S): Risk-taking

TREATMENT(S): Discussion—ethical issues

Alker, H., & Kogan, N. Effects of norm-oriented group discussion on individual verbal risk-taking and conservatism. *Human Relations*, 1968, *21*, 393-405.

The article presented three studies dealing with the effect of group discussion on individuals' vicarious risk-taking behavior.

The first study offered alternative hypotheses: that risk-taking either would or would not be increased by group discussion of matters irrevelant to the risk-taking situations. Ninety-seven female undergraduates were divided into four-person groups and administered the *Choice-Dilemmas* (C-D) instrument (Kogan & Wallach, 1964), designed to measure subjects' disposition to make risky decisions in hypothethical (nonethical) situations. The groups then discussed fashion preferences. Finally, subjects were re-administered the C-D instrument. A nearly significant overall trend toward increased conservatism was observed: 16 out of 24 groups decreased their propensity to take risks.

A second study was designed to test whether group discussion per se (regardless of topic) would increase conservatism by calling subjects' attention to the general issue of their personal deviation from group norms. It was hypothesized that group discussion of ethical norms, an area in which deviance could be more readily isolated and would be less tolerated than deviance in the area of fashion preferences, would increase subjects' conservatism on the C-D risk-taking task. Sixty female undergraduates underwent the same procedure as in Study 1, with ethical-conflict choice situations substituted as the material for group discussion. It was found that after discussion, groups became significantly more conservative in risk-taking behavior.

The third study replicated Study 2 except that during the group discussions subjects were asked, not what was ethically correct, but what they would actually do in each ethical-conflict situation. It was hypothesized that the conservative shift found in Study 2 would be replaced by increased risk-taking. The C-D was administered to 55 female undergraduates before and after group discussion. The conservative shift disappeared, but general risk-taking (in the nonethical situations of the C-D instrument) did not increase. However, subjects responded significantly less conservatively to the ethical situations under discussion than they had in Study 2, and the direction and degree of group consensus in regard to violation of ethical norms were correlated with risk-taking behavior on the C-D instrument.

From Study 1 the authors concluded that in order to increase risk-taking, group discussion must be relevant to taking risks. From Study 2 they concluded that group affirmation of norms, especially of social values, induces or releases dispositions toward general conservatism in any risk-taking situation. From Study 3 they concluded that group discussion whose consensus is toward upholding ethical norms will result in increased individual conservatism, whereas discussions whose consensus is toward individualistic counternorm alternatives of behavior will increase general risk-taking behavior. The authors speculated that these patterns of group discussion and risk-taking may be associated with the political-ideological orientations of "left" and "right."

EFFECT AREA(S): Risk-taking

TREATMENT(S): Discussion—ethical items; nonethical items

Myers, D., Schreiber, F., & Viel, D. Effects of discussion on opinions concerning illegal behavior. The Journal of Social Psychology, 1974, 92, 77-84.

The study generalized the findings of recent research on the effects of group discussion on risk-taking and further explained discussion-induced changes in risk-taking. It was hypothesized that: (a) discussion would enhance the initial mean tendency of a group regarding risk-taking on ethical/legal items of an attitude scale; and (b) a shift toward increased risk-taking on both ethical/legal dilemma items and choice-dilemma items would occur only if the subjects perceived themselves as riskier than their average peer. Two Sample Groups, 66 college-age inmates of the Michigan Training Unit, Ionia, Michigan, and 67 male college students, were used as subjects. After responding to three choice dilemmas and three ethical/legal dilemmas on the attitude scale (with Linkert-type format), subjects within each Sample Group were randomly assigned to groups of three to six members and discussed the items on the attitude scale for 2-1/2 minutes. The subjects then responded again to the attitude scale. Results showed that neither Sample Group shifted toward increased risk-taking on choice-dilemma items following the discussion. On ethical/legal dilemmas, both Sample Groups increased their level of risk-taking (as indicated by greater approval for illegal behavior following discussion), although they had initially perceived themselves as less risky than their peers. The authors found that social-comparison theories and informational-influence theories only partially accounted for shifts in risk-taking.

EFFECT AREA(S): Risk-taking

TREATMENT(S): Discussion

Rettig, S. Group discussion and predicted ethical risk-taking. Journal of Personality and Social Psychology, 1966, 3(6), 629-633.

The author proposed that group discussion would increase predictive judgments of unethical behavior (risk-taking) in the same way as two other risk conditions, privacy and impersonality of judgment. A behavior-prediction scale, consisting of items in which the levels of (a) reinforcement value of gain, (b) expectancy of gain, (c) negative reinforcement value of censure, and (d) expectancy of censure were varied between high and low levels, was used by 160 undergraduate students to rate the possibility of unethical action (stealing) in a conflict situation. Two forms of the questionnaire were used: (a) Personal—subjects predicted their own behavior in the situation; and (b) Impersonal—subjects predicted the behavior of another person. The subjects were equally divided by sex among the following conditions of judgment: (c) Group Decision—made after a discussion; (d) Individual Decision; (e) Private Decision—predictions not revealed; and (f) Public Decision—predictions revealed. Both the Group-discussion and Impersonal conditions increased the prediction of unethical behavior. The Group-discussion effect was significantly more pronounced in the Personal than in the Impersonal condition. The interaction between the Personal condition and the Public condition was significant. The effect of publicity alone did not reach significance. Inspection of the internal determinants (reinforcement value of gain, expectancy of gain, negative value of censure, and expectancy of censure) showed that the condition of Personal Decision significantly affected all of them except reinforcement value of gain; the condition of Group Decision affected only reinforcement value of gain. The author suggested that the reinforcement value of gain was largely responsible for the difference of risk-taking in the Group-decision and Individual-decision conditions. The results supported the general notion that conditions of low risk make for increased risk-taking; judgments of unethical behavior made in private rather than in public, and referring to a hypothetical person rather than the subject himself, are less likely to be censured and thus represent low-risk conditions of judgment. Previous studies have shown that group discussion also lowers risk, an idea supported by the present study.

EFFECT AREA(S): Risk-taking

TREATMENT(S): Discussion—Live presentation of ethical issues;
taped presentation of ethical issues

Rettig, S., & Turoff, S. Exposure to group discussion and predicted ethical risk-taking. *Journal of Personality and Social Psychology*, 1967, *7*(2), 177-180.

The study was concerned with the effect of group discussion upon prediction of risk-taking in a moral situation. It was hypothesized that the physical presence of others, rather than taped discussion, would increase subjects' risk-taking behavior. One hundred sixty college students were placed in one of four conditions: (a) Live Discussion, Personal Risk—the subject took part in a group discussion of 16 hypothetical crimes (thefts) and was told to imagine that the potential criminal was himself; (b) Live Discussion, Impersonal Risk—the potential risk-taker was anonymous; (c) Taped Discussion, Personal Risk—the subject heard one of the previous live discussions on tape; and (d) Taped Discussion, Impersonal Risk. In each of the 16 risk situations one of four aspects—(e) probability (high or low) of the thief's success, (f) importance (great or small) of the stolen money to the thief, (g) penalty (high or low) for getting caught, and (h) probability (great or small) of the money solving the thief's problem—was varied randomly. Subjects in the Live conditions predicted that the thieves would commit the crime significantly more often than did subjects who had heard the Taped Discussions, and subjects who imagined the thief as themselves took significantly fewer risks than did subjects for whom the thief was anonymous. Significantly more risks were taken when the importance of the money to the thief was great than in any other risk-situation condition, suggesting, the authors believed, that subjects condoned "justified" thievery. From their results the authors concluded that both the physical presence of others and the increased information provided by discussion were responsible for the increased prediction of normatively unethical behavior.

ROLE-TAKING

DEFINITION: Role-taking—The ability and disposition to understanding the perspective of another person (of a different role) within a specific situation. While role-taking may include both cognitive and affective elements, the emphasis, as in the studies presented here, is on cognitive skill. Role-taking is sometimes used interchangably with empathy (see above).

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EFFECT AREA(S): Role-taking

TREATMENT(S): Direct Training—classroom training
Discussion

Botkin, P. Role-taking as a means of improving communication. Unpublished paper, San Diego State University, n.d.

The study presented the results of a training program designed to improve role-taking skill. The author defined role-taking as cognitively taking another's viewpoint in order to structure communication in his frame of reference. Seventy-five sixth-grade subjects (43 boys and 32 girls) were given a pretest battery, 3 weeks of instruction, and a posttest battery. The batteries (for which no citations were given) consisted of the Step Listening Test (SLT), a measure of listening skill; the Milgram Word Association Test (MWAT), a measure of subjects' ability to form abstract associations; and the Fry Communication Test (FCT), a measure of subjects' ability to communicate a specific description. Subjects were placed in one of three conditions: (a) Role-taking Only; (b) Role-taking, Teacher-led Discussion; and (c) Control—subjects received a mathematics curriculum. The Role-taking training followed Flavell's (no citation given) guidelines: (a) provision of a realistic communication situation; (b) provision of feedback, and (c) coordination and integration of the roles of communicator and listener. Programmed lessons were also provided on various aspects of effective role-taking (e.g., self-insight, role perception). Scores on the MWAT and the FCT were significantly higher for Experimental than for Control subjects. The group which received Teacher-led Discussion improved more on the SLT and the FCT than did the other Training group. In addition, there were no correlations between role-taking improvements and intelligence (as measured by the Lorge-Thorndike Intelligence Test) or reading ability. The author concluded that role-taking skill can be enhanced through training.

EFFECT AREA(S): Role-taking

TREATMENT(S): Direct Training

Chandler, M. J. Egocentrism and antisocial behavior: The assessment and training of social perspective-taking skills. Developmental Psychology, 1973, 9(3), 326-332.

In this study, training was provided in an attempt to remediate the deficiency in role-taking skills among delinquents. The author predicted that a developmental change in role-taking skills would be associated with behavioral change. After documenting that delinquents had significantly lower role-taking ability than nondelinquents, 45 delinquent boys (CA 11 to 13 years) were assigned to one of the following conditions: (a) Role-taking—the subjects participated in 10 half-day film-making workshops to produce dramas about persons their own age in which they were guided in developing and using role-taking skills; (b) Placebo—the subjects participated in a film-making workshop in which they made cartoons and documentaries; (c) No-treatment Control. The posttests indicated that subjects in the Role-taking condition improved more in social-perspective skills than did subjects in the other two groups, whose level of role-taking did not differ from one another. A follow-up on 33 subjects showed that for the Role-taking group, the decrease in delinquent offenses in the 18 months after the intervention compared with the 18 months prior to it was significantly greater than the decrease among Placebo and Control subjects. Although the author cautioned against concluding that a developmental lag in role-taking ability causes social deviancy, he implied that a developmental understanding of role-taking and a treatment to improve this ability would be useful to counteract delinquency.

EFFECT AREA(S): Role-taking

TREATMENT(S): Direct Training

Chandler, M., Greenspan, S., & Barenboim, C. The assessment and training of role-taking and referential communication skills in institutionalized emotionally disturbed children. Paper presented at the meeting of the American Psychological Association, Montreal, 1973b.

The study was concerned with the relationship between the sociocognitive abilities of role-taking and referential communication and social deviancy. It was hypothesized that: (a) institutionalized emotionally disturbed children would show evidence of developmental delays in the acquisition of role-taking and referential communication skills; (b) these deficits could be partially remedied through programs of training in communication and role-taking; and (c) improvements in sociocognitive skills would be accompanied by improvements in social competence. Forty-eight institutionalized emotionally disturbed children were placed in three Experimental conditions: (a) a group received 10 weeks of communication-games training for development of referential communication skills; (b) a group received 10 weeks of drama and film-making training for development of role-taking skills; and (c) No-training Control. It was found that both types of training produced a significant improvement in role-taking skills, while training in referential communication produced significant improvement only in referential-communication skills. A 12-month follow-up revealed that significant behavioral improvement, as rated by the childrens' counselors, was a consequence of the sociocognitive-skills training.

EFFECT AREA(S): Role-taking

TREATMENT(S): Direct Training

Fry, C. A developmental examination of performance in a tacit coordination game situation. Journal of Personality and Social Psychology, 1967, 5(3), 277-281.

The study compared the performance of preadolescent (fourth grade) and adolescent (eighth grade) children with college students in a Tacit Coordination Game (TCG), a situation in which a subject and his partner, through trial-and-error responding, arrive at a strategy by which they match each other's responses. It was hypothesized that: (a) preadolescents would perform worse than adolescents and college students; (b) adolescents' performance would improve with practice in the direction of college students' performance; and (c) partners with discrepant ascendence scores (one partner dominant, the other submissive) would outperform partners with similar ascendence scores. Twenty-four fourth graders and 24 eighth graders were assigned to ascendence quartiles on the basis of their scores on the Allport and Allport A-S Reaction Study (a test) and paired in all possible combinations of ascendence level. Each pair performed three TCG problems; their scores were then compared with previously obtained scores of college students. A significant performance difference was found among all age groups, with college students performing best and preadolescents worst. While both college students and adolescents improved with practice, preadolescents did not. Only for college students did discrepant-ascendence pairs perform consistently better than similar-ascendence pairs; for adolescents, discrepant-ascendence pairs performed significantly better on the first problem but worse on the last. All college students and adolescents consistently found game solutions, whereas preadolescents did so only 60% of the time. The author explained his results in terms of Piaget's age-level theory of cognitive development, which states that preadolescents have not yet developed the skills of attending to and appreciating another's point of view. (Reviewer's Comment: A more complete analysis of the two situations—game and Piagetian—seems called for before concluding that tne TCG's anticipation of another's game strategy fully corresponds to Piaget's idea of taking another's point of view in social and ethical situations. To the extent that it does, the TCG or a similar tool might be useful for training children in the development of interpersonal and moral-judgment skills.)

Citations of Abstracts Dealing with Role-taking which Appear in Full under Another Effect Area

Sprinthall, N. Learning psychology by doing psychology: A high school curriculum in the psychology of counseling. Southeast Alternatives, January 1974, Report 1. (p. 102)

SELF-CONTROL

DEFINITION: Self-control—The ability to evaluate, judge, regulate, or modify one's behavior. Most often in the studies presented here, it relates to delay of gratification—the ability to tolerate self-imposed delay of reward.

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EFFECT AREA(S): Self-control—delay of gratification

TREATMENT(S): Modeling—live model; symbolic model

Bandura, A., & Mischel, W. Modification of self-imposed delay of reward through exposure to live and symbolic models. Journal of Personality and Social Psychology, 1965, 2, 698-705.

The study was concerned with the efficacy of live versus verbally presented "symbolic" models (descriptions of a model's actions) in modifying delay-of-reward behavior. The hypotheses were that: (a) both symbolic verbal and live cues would alter children's self-imposed delay behavior in the direction of the model's delay behavior; and (b) live models would be more effective than verbal models in this regard. Sixty girls and 60 boys in the fourth and fifth grades exhibiting either predominantly delayed-reward or predominatly immediate-reward choice patterns were placed randomly in one of three Experimental conditions: (a) a Live Adult Model chose either an immediate or a delayed reward and commented favorably on his choice; (b) a Verbal Description (Symbolic Model) of a (live adult) model's choosing behavior was presented; and (c) No-model Control. The models exhibited delay-of-reward behavior opposite to each subject's predetermined tendency. Children who had shown a preference for immediate rewards switched to a preference for delayed rewards after observing models who were willing to wait, and children initially preferring to delay rewards switched to a preference for immediate gratification (these changes were significant). In the immediate social-influence setting, both Live and Symbolic Models were equally effective, but with children who changed to low-delay behavior, the Symbolic Model yielded significantly weaker long-term effects. The children who changed to high-delay behavior showed significantly less tendency to maintain their behavior over time. On the basis of these findings the authors suggested the need for immediate support of newly acquired self-control behavior.

EFFECT AREA(S): Self-control—delay of gratification

TREATMENT(S): Attitudinal/Affective Manipulation—expectancy of reward; familiarity of dispensing agent

Mahrer, A. The role of expectancy in delayed reinforcement. Journal of Experimental Psychology, 1956, 52(2), 101-105.

The study was concerned with the relation between expectancy of receiving reinforcement and tendency to delay reward. It was hypothesized that: (a) subjects trained to possess varying levels of expectancy for receiving a delayed reward would choose that same reward instead of a lesser-valued immediate reward; and (b) this choice pattern would be displayed only if the social agent dispensing the reward were familiar to the subjects. One hundred thirty-seven boys aged 7 to 9 years were placed in three Experimental conditions: (a) High Expectancy for receiving delayed reward, (b) Moderate Expectancy, and (c) Low Expectancy. Ninety-seven similar naive children were placed in a (random-expectancy) Control group. Each of the three Experimental groups was subdivided into two groups, one with a (d) Familiar and one with an (e) Unfamiliar Dispensing Agent; the Controls, to whom neither agent was familiar, were divided between both subgroups. For the children with a Familiar Dispensing Agent, High Expectancy of reward resulted in significantly greater choice of the delayed reward than did either Moderate or Low Expectancy. For children with an Unfamiliar Dispensing Agent, expectancy did not affect delay behavior; thus, children with an Unfamiliar Dispensing Agent delayed significantly less than did High-expectancy children with a Familiar Dispensing Agent and significantly more than did Low-expectancy children with a Familiar Dispensing Agent.

EFFECT AREA(S): Self-control—delay of gratification

TREATMENT(S): Direct Training

Mischel, W., Ebbesen, E. B., & Zeiss, A. R. Cognitive and attentional mechanisms in delay of gratification. Journal of Personality and Social Psychology, 1972, 21(2), 204-218.

The author hypothesized that delay of gratification would be: (a) increased by overt or covert distraction from the expected reward, and (b) decreased by attending to the reward. A series of three experiments using different numbers of nursery school children was designed to test these propositions. In each experiment the subject could obtain a less-preferred reward immediately (a pretzel or marshmallow) or wait indefinitely for a more-preferred reward (mechanical toys). In Experiment I, which varied covert and overt distractions, subjects were assigned to the following conditions: (a) Delayed Reward, Internal Distraction—subjects were told to think about "fun things" while waiting for a reward; (b) Delayed Reward, External Distraction—subjects were given a toy to play with while waiting for a reward; (c) Control, Delayed Reward—no distraction was provided while waiting for a reward; (d) Control, External Distraction—subjects were given a toy to play with while waiting for the less-preferred reward; there was no delayed reward contingency; (e) Control, Internal Distraction—subjects were told to think about "fun things" while waiting for the less-preferred reward, there was no delayed-reward contingency. In Experiment II, which explored how the substantive content of the cognitive distractions (as generated by various types of instructors) affected delay of gratification, subjects were placed in conditions similar to (a), (b), and (c) above; however, the substantive content of (a) was varied: subjects were told to (1) think "fun" thoughts, (2) think "sad" thoughts, and (3) think about the food reward. In Experiment III, which investigated the effects of distractors on delay of gratification when the rewards were not physically present (as they had been in Experiments I and II), subjects either: (a) were told to think about the rewards while waiting; (b) were told nothing about the rewards; or (c) were instructed to think about "fun" things. Findings from the series of experiments confirmed the general hypotheses. Results from Experiment I showed that subjects' delay of gratification was minimal when they waited without distraction for the preferred reward (which was in view); however, delay time increased when the subjects were engaged in an affectively positive distraction, the "think fun" conditions. Experiment II replicated the latter result. In Experiment III, where the rewards were not in view, the "think fun" condition subjects were able to wait for a long period of time before gratification, but the "think reward" subjects could not delay gratification for a significant length of time. Children who thought about an absent reward yielded as quickly as those who had no distraction when the rewards were in view. The authors suggested that effective delay depends on cognitive suppression and avoidance mechanisms that reduce frustration, and under the right conditions, such delay can be demonstrated by most subjects.

EFFECT AREA(S): Self-control—delay of gratification

TREATMENT(S): Reinforcement—symbolic presentation of reward

Mischel, W., & Moore, B. Effects of attention to symbolically presented rewards on self-control. Journal of Personality and Social Psychology, 1973, 28(2), 172-179.

The authors explored the effects of symbolically presented rewards on children's delay of gratification. They theorized that symbolically presented rewards would increase delay time. No specific hypothesis was stated. One hundred twenty-three preschool children (mean CA 4 years—5 months) were told that they could wait for a preferred reward or signal that they wanted a less-preferred reward immediately. A factorial design varied conditions of: (a) content: subjects saw either (1) Relevant Imagery—a slide of the chosen reward, (2) Irrelevant Imagery—slides of objects not seen before, (3) Blank Slide—the screen was illuminated, or (4) No-slide Control; (b) schedule: (1) Continuous—subjects saw the slide without interruption, or (2) Periodic—subjects saw the slide for fixed intervals of 30 seconds; and (c) task structure: (1) Working—subjects were engaged in a task while waiting for their reward, or (2) Waiting—subjects remained idle while waiting for their reward. Results showed that in all conditions Relevant-imagery slides produced longer delay times than did Irrelevant-imagery slides or No Image. The effects of schedule and task were not significant. The finding that exposure to symbolically presented reward increased delay of gratification contrasts with previous research findings showing that delay of gratification decreased when children attended to actual rewards. The major implication of this study, the authors suggested, is that the mode of reward stimuli is as significant as attention to the reward; attention to symbolic reward can increase self-control by helping a subject to focus on the abstract qualities of a reward, which serve as a reminder to sustain delay behavior, whereas viewing the actual reward or ideating about rewards may stimulate the arousing qualities of the reward and thereby undermine self-control.

VALUES

DEFINITION: *Values*—Enduring beliefs concerning desirable modes of conduct or desirable end states of existence; personally held criteria for determining goodness, worth, or beauty.

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EFFECT AREA(S): Values

TREATMENT(S): Direct Training—discovery learning

Boleratz, J. Learning by discovery: An experimental study to measure its effectiveness for teaching value concepts. *Journal of Experimental Education,* 1967, *36*(2), 13-21.

The study examined the effectiveness of an instructional program designed to promote discovery learning in classroom situations. Discovery learning in this case was a strategy to guide students to inductively construct generalizations about five concepts pertaining to values: value-directed behavior, valuing, evaluation, value system, and life styles. The hypothesis was that, independent of IQ and SES, students who were taught a given content ("five concepts of value") by teachers employing special lesson plans to foster discovery learning would score better on the *Value Concepts Test* (VCT), a measure of ability to generalize, than would students taught the same subject matter in conventional (undefined by authors) ways. Fifteen ninth- and tenth-grade classes were assigned randomly to six Experimental teachers (using the special method) and nine Control teachers. After five 45-minute instruction periods, the specially trained students scored significantly higher on the VCT than did conventionally trained students, independent of IQ and SES.

EFFECT AREA(S): Values
Attitudes

TREATMENT(S): Attitudinal/Affective Manipulation—value bonding; attitude change

Edwards, J. *Resistance to attitude change: Applications of the value bonding model.* (Doctoral dissertation, The Ohio State University, 1970). (University Microfilms No. 71-19, 025)

Three experiments designed to test the value-bonding model of attitude change were presented.

In the first it was hypothesized that attitudes which were closely related to important values held by subjects would be more resistant to change than would either attitudes that were unrelated to values or attitudes that were related to unimportant values. Eighty-two male and female college students were shown a list of traits describing "Person X" and asked to write a character sketch of him (the attitude-formation task). Subjects were then assigned to one of four conditions according to the nature of the value statement they received: (a) the values were closely related to traits which described "Person X" (hence to subjects' attitudes about "Person X") and highly important to the subject (i.e., values were attitude-related and important); (b) the values were unrelated to "Person X" but highly important to the subject; (c) the values were related to "Person X" but unimportant to the subject; and (d) the values were unrelated to "Person X" and unimportant to the subject. Subjects were asked to explain in a paragraph how they felt "Person X" would be related to the respective value statements—whether he would agree with them, etc. (the value-bonding process). Finally, subjects' attitudes toward "Person X" were measured (whether they felt favorable or unfavorable toward him), they were given information about "Person X" which conflicted with their initial impression of him, and their attitudes were measured again. When values important to the subject were closely related to attitudes about "Person X", resistance to change in attitudes was significantly greater than for all other conditions.

The study's second experiment offered moderate support for the hypothesis that the number of important values to which an attitude was bonded would be positively related to the attitude's resistance to change.

A third experiment found that value importance became more critical to resistance to attitude change as the discrepancy increased between subjects' initial impression of "Person X" and the conflicting information about him they subsequently received.

The study has implications for the significance of values in the formation and change of attitudes and, conversely, for the influence of attitudes upon value change.

EFFECT AREA(S): Values—change

TREATMENT(S): Attitudinal/Affective Manipulation—induced Inconsistency between attitudes and values

Hamid, P., & Flay, B. Changes in locus of control as a function of value modification. Journal of Social and Clinical Psychology, 1974, 13, 143-150.

The study concerned the relation between value change produced by cognitive inconsistency (Rokeach, 1968) and locus of control (Rotter, 1954). Several hypotheses were listed: (a) for experimental subjects there would be significant increases in the importance of the values of freedom and equality following a message which pointed out the inconsistency between subjects' responses to the two values; (b) internal/external locus-of-control (IE) score would not change following the value-change communication; (c) externals (subjects who, as indicated by their IE score, believe that reinforcing events in their life are a function of external events largely beyond their own control) would change their values more than would internals (who believe that their own behavior determines what happens to them); and (d) externals would show an increase, internals a decrease, in the rated importance of equality. Eighty-four college students ranked 18 values in order of personal importance (Rokeach, 1968) and were administered a modified version of the IE scale (Rotter, 1966). Subjects were then exposed to a communication (Rokeach, 1971) designed to make their rankings of freedom and equality appear inconsistent with high regard for civil rights (provided that, as is usually the case [Rokeach, 1968], subjects initially ranked freedom high and equality low). Two weeks later subjects reranked the 18 values and again filled out the IE scale. Nineteen of the 84 subjects acted as Controls and were not exposed to the value-change communication. For Experimental subjects, equality was ranked significantly higher after than before the communication. There was no significant difference in value change between externals and internals. However, there was a significant interaction between value change and IE change: subjects who changed their value rankings very little moved significantly toward internality, whereas subjects showing a large increase in the rated importance of equality became more external. (No such relationship was found for Controls.) The authors suggested that the experience of value change seemed to alter subjects' locus of control. Subjects who resisted change were perhaps led to a greater belief in their own ability to control events, whereas "giving in" by changing their values resulted in increased belief in the externality of control. However, the authors acknowledged the possibility that demand characteristics of the experiment could have produced change in both values and locus of control.

EFFECT AREA(S): Values
Attitudes

TREATMENT(S): Attitudinal/Affective Manipulation—value change via demonstrated value ranking inconsistency

Hollen, C. C. Value change, perceived instrumentality, and attitude change. (Doctoral dissertation, Michigan State University, 1972). (University Microfilms No. 72-22, 229)

The study was concerned with the effect of an induced value change on changes in attitudes instrumental to the attainment of that value. It was hypothesized that: (a) a value could be changed by making subjects aware of inconsistencies between their ranking of the value in personal importance and rankings of the same value by significant others; (b) an increase in the importance of a value would lead to increases in the strength of attitudes instrumental to attaining that value; and (c) the amount of attitude change would be directly proportional to the attitude's perceived instrumentality in satisfying the value. Subjects (age and number not specified in the source) were pretested on attitudes toward various "social actions" (actions designed to end pollution, beautify the countryside, etc.) and asked to rank 18 values from most to least important. Subjects then indicated to what extent they felt each attitude would facilitate (or hinder) the attainment of a particular value (the attitude's instrumentality rating). One week later subjects received a communication designed to increase the importance of the value *A World of Beauty*. A Control group received no communication. Finally, subjects' attitudes and value rankings were measured immediately following the communication and 1 month later. There was a significant increase on both posttests in the ranked importance of *A World of Beauty*. Also, attitude change occurred and was related to an attitude's instrumentality in satisfying the value of *A World of Beauty*: attitudes instrumental in satisfying the value increased significantly in strength. Attitude change did not decrease over time. The author concluded that changing an individual's values is an effective and economical way of changing his attitudes.

EFFECT AREA(S): Values–clarification
Reasoning and Judgment

TREATMENT(S): Direct Training–individualized classroom training and instruction

Jonas, H. *A study of the relationship of certain behaviors of children to emotional needs, values, and thinking.* (Doctoral dissertation, New York University, 1960). (University Microfilms No. 61-371)

The study was one of three identical experiments run simultaneously by different investigators in different grade levels of the same school (see Martin, 1960). It was hypothesized that: (a) classroom training by the investigator would result in reduction of behavior associated with (1) unmet emotional needs, (2) lack of value clarification, and (3) faulty thinking; and (b) no drop in academic achievement would occur. The theoretical rationale for the hypotheses and the training is discussed briefly in Martin's (1960) study. Fifth-grade children (number not specified) were rated on the target behaviors by teachers, and training procedures derived from Raths' Needs, Values, and Thinking Theories were carried out with 8 children suffering from these types of difficulties. Two other fifth-grade classes (number of students not specified) served as a Control group. The training was conducted in the classroom for 75 school days. All the hypotheses were confirmed. Implications were drawn for nine areas of educational concern.

EFFECT AREA(S): Values–clarification
Reasoning and Judgment

TREATMENT(S): Direct Training–individualized classroom training and instruction

Machnits, J. A study of the relationship of certain behaviors of children to emotional needs, values, and thinking. (Doctoral dissertation, New York University, 1960). (University Microfilms No. 61-375)

The study was a near-duplication of Martin's (1960) study on the remedial training of schoolchildren with unmet emotional needs, unclarified values, and faulty thinking. The theoretical foundation and hypotheses were identical to Martin's 1960 work. Eighteen children from a fourth-grade class (in Martin's school) were designated by their teachers as having special difficulties in the aforementioned areas. The author employed techniques developed from Raths' writings to modify the behavior of eight of the children; the remaining 10 served as Controls. Experimental subjects showed a greater reduction in the maladaptive target behaviors than did Controls.

EFFECT AREA(S): Values–clarification
Reasoning and Judgment

TREATMENT(S): Direct Training–individualized classroom training and instruction

Martin, D. A study of the relationship of certain behaviors of children to emotional needs, values, and thinking. (Doctoral dissertation, New York University, 1960). University Microfilms No. 61-338)

The study hypothesized that emotional needs, values, and thinking of schoolchildren could benefit from the intervention of a trained investigator who employed remedial techniques derived from the Needs, Values, and Emotion Theories of Louis Raths. (These "theories" consist of psychological ideas tied to practical principles of changing maladaptive behavior.) Seven third-grade children with behavior problems in these three areas were given individualized remedial programs lasting 13 weeks which were designed either to meet unfulfilled emotional needs (three subjects), clarify values (two subjects), or correct faulty thinking (two subjects). The specific behaviors which the training was designed to alleviate were: (a) in the area of emotional needs–aggression, submission, withdrawal, regression, and psychosomatic symptoms; (b) in the area of values–apathy, flightiness, indecisiveness, overconformity, nagging dissent, posing in various roles, and inconsistency; and (c) in the area of thinking–impulsiveness, means-ends confusion, inconsistency, conclusions not based on data, inflexibility, poor problem-solving, and inability to work with peers. Afterwards teacher ratings of the seven subjects were compared with ratings of untrained Control subjects suffering from similar difficulties in their classroom behavior. "Marked" behavioral changes, in comparison with the Controls, were observed for all subjects with unmet emotional needs and thinking problems, and for one subject with value problems. Implications for educational theory, curriculum improvement, teacher training, and education research were discussed.

EFFECT AREA(S): Values

TREATMENT(S): Direct Training—building definitions of value concepts

McKenzie, G. Clarifying value concepts: An inductive approach. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, April 1974.

The author proposed a logical definition of "values" as a type of abstract concept, a definition which allows the learning of values to be conceptualized as a process of concept development according to various cognitive models. It was hypothesized that subjects who applied the steps of Taba's (1966) cognitive concept-development model in learning to recognize values would: (a) state more sophisticated definitions of justice, and (b) classify judicial decisions as just or unjust more "consistently" (author's word) than would subjects who had received no training. Forty-seven fifth graders were placed in either the Treatment or the Control group. Treatment consisted of a 25-minute training period in evaluating the level of justice exemplified by jury decisions in several summarized court cases. Subjects were encouraged to: (a) classify the decisions according to initial impression, (b) describe and compare the circumstances of each case and contrast "good" and "bad" decisions, (c) form an operational definition of justice consisting of the attributes of good decisions, and (d) apply their definition to new decisions. After their training, subjects wrote a definition of justice which was scored for level of sophistication (according to whether justice was equated with equal application of the law or understood as the weighing of both values and circumstances in each individual decision) and classified 10 matched pairs of jury decisions of unequal sophistication as just or unjust. Experimental subjects stated more complex definitions of justice than did Control subjects and were significantly more "consistent" in classifying decisions. The author claimed to have demonstrated the effectiveness of a practical approach to teaching value clarification.

EFFECT AREA(S): Values
Attitudes

TREATMENT(S): Attitudinal/Affective Manipulation—value-bonding; counter-attitudinal communication

Nelson, C. Anchoring to accepted values as a technique for immunizing beliefs against persuasion. (Doctoral dissertation, Columbia University, 1966). (University Microfilms No. 66-9367)

The study attempted to test the theory that attitudes which are bonded (linked conceptually) to values are resistant to change. It was hypothesized that: (a) the more values to which an attitude was linked, the more resistant would be that attitude to change; (b) values whose bonding required more effort because they were initially less related to attitudes would produce more resistance to change than would values directly related to attitudes (a dissonance-theory hypothesis); and (c) writing would produce stronger bonding and thus greater resistance to change than would passive reading. One hundred four high school seniors were instructed to develop conceptual relations between attitudes toward health and a list of values (the bonding process). Subjects were placed in six conditions which varied each of three variabiles at two levels: (a) number of values to which attitudes were bonded—(1) few or (2) many; (b) relation of values and attitudes before the bonding—(1) high or (2) low; and (c) bonding activity—(1) active (subjects wrote essays linking attitudes and values) or (2) passive (subjects read experimenter-prepared statements linking values and attitudes). In addition a (d) Control condition was included in which subjects took the two attitude measures without being exposed to the attitude-change communication. Results showed that the active-bonding process (writing) was more effective in rendering attitudes resistant to change than was the passive process; subjects who used the passive process as a defense against attitude change changed their attitudes significantly more than did Controls. The degree of relatedness between attitudes and values had little effect on attitude change.

EFFECT AREA(S): Values
Attitudes

TREATMENT(S): Attitudinal/Affective Manipulation—endorsement varied

Oram, P. Induction of action and attitude change: The function of role-self values and levels of endorsement. (Doctoral dissertation, Boston University Graduate School, 1959). (University Microfilms No. 66-11, 277)

The study presented and tested a conflict model of the way induced behavior causes attitude change. The model suggests that in many situations role-related and self-related attitudes are in conflict in that one set of attitudes dictates performance of a behavior, while the other prohibits the behavior. Whether the behavior will occur depends on this approach/avoidance relationship (which can be graphed). It was hypothesized that in situations of conflict between role-attitudes and self-attitudes: (a) when role-attitudes dictated performance of a behavior (role-approach) and self-attitudes (values) prohibited the behavior (self-avoidance), induced behavior would change role-attitudes; and (b) in self-approach/role-avoidance situations, induced behavior would fail to change self-attitudes. It was also hypothesized that degree of the subject's endorsement of his induced behavior would affect attitude change, and that change would increase over time. One hundred forty-seven student nurses were given measures of their role-related attitudes and self-related values on issues which are often in conflict for nurses. Subjects were then assigned to either a: (a) Role-approach, Self-avoidance conflict situation; or (b) Self-approach, Role-avoidance conflict situation. Subjects in each conflict situation were assigned to subconditions of either High, Low, or Neutral Endorsement. Each subject was asked to write an essay advocating the approach behavior in his respective conflict situation. As predicted, significant attitude change occurred in the Role-approach, Self-avoidance situation but not in the Self-approach, Role-avoidance situation. Level of endorsement was not related to attitude change, nor did change increase over time. The author pointed out that his conflict model succeeded in predicting different amounts of attitude change in situations for which dissonance theory and improvisation theory, the other theories of attitude change, would have predicted equal amounts of change. (Reviewer's Comment: Due to the complexity of the model the study's results cannot be generalized: The study does not imply that self-attitudes are always more difficult to change than role-attitudes. Rather, attitude change depends on the relation between three variables: type of attitude [role or self], direction of the attitude [whether it advocates or prohibits behavior], and distance of the person from his attitude object [i.e., how close he is to performing the behavior]).

EFFECT AREA(S): Values
Attitudes

TREATMENT(S): Attitudinal/Affective Manipulation—value-bonding

Ostrom, T., & Brock, T. A cognitive model of attitudinal involvement. In R. Abelson, E. Aronson, W. McGuire, T. Newcomb, M. Rosenberg, & P. Tannenbaum (Eds.), Theories of cognitive consistency: A sourcebook. Chicago: Rand McNally, 1968.

The article presented and tested a model of the effect of ego-involvement upon attitude change. Ego-involvement was defined as the extent to which an attitude is personally valued because it is, or is related to, a value which forms part of the self-structure. The extent to which an attitude is valued, in turn, was thought to be a function of the centrality (in the self-structure) of the values to which it is related (as well as the degree of attitude-value relatedness and the number of values to which the attitude is related). It was hypothesized that after attitudes were bonded (related by means of an experimental manipulation) to values, an interaction would occur between ego-involvement and amount of communication discrepancy, so that the attitudes of high-involvement subjects would be changed less by a strong counterattitudinal communication than would the attitudes of low-involvement subjects. Subjects (number, sex, and age not specified) read position statements opposing the admission of Greenland to the World Bank. Subjects then rated the relevance of the points in the statement to a list of either highly central, self-relevant values or peripheral, less personally important values (value centrality was determined by pretesting); this was the value-bonding process. Subjects next received a counterattitudinal communication which, by virtue of the degree to which it was for Greenland's admission to the World Bank, was either mildly or highly discrepant with their initial attitude. A subject was thus in one of four conditions: (a) Central Values, High-discrepancy Communication; (b) Peripheral Values, High-discrepancy Communication; (c) Central Values, Low-discrepancy Communication; and (d) Peripheral Values, Low-discrepancy Communication. As predicted, subjects in condition (d) changed their attitudes significantly more than did subjects in any other condition; differences in amount of change among the other conditions were not significant.

EFFECT AREA(S): Values–change

TREATMENT(S): Attitudinal/Affective Manipulation–induced dissatisfaction with own values

Rokeach, M. Long-range experimental modification of values, attitudes, and behavior. American Psychologist, 1971, 26(5), 453-459.

The author presented the findings of three previous experiments which tested a theory and method of producing value change in subjects. The general experimental procedure, employed in all three experiments, began with the request that subjects rank 18 values in order of personal importance and state in writing their position on civil rights. Self-dissatisfaction with personal values was then induced by showing subjects how students' average relative rankings of the values of freedom and equality were related to their attitudes toward civil rights: subjects saw that students who had participated in civil rights demonstrations tended to rank freedom and equality the same, whereas students who were apathetic toward civil rights ranked freedom well above equality. Subjects also received a communication which suggested that individuals who valued freedom more than equality were selfishly motivated, etc. (Since most Experimental subjects did in fact rank freedom much higher than equality initially, induced dissatisfaction was expected to be high.) Immediately after the experiments, subjects filled out a questionnaire measuring self-dissatisfaction with values. Several months later, values were reranked and behavioral measures obtained. Experiment 1, whose subjects were college students, revealed that immediate dissatisfaction ratings correlated significantly with the amount of value change 3 to 5 months later and that Experimental subjects evidenced significantly more dissatisfaction with their rankings and more value change than did Controls (who had received the experimental measures in the absence of the treatment). In Experiments 2 and 3, whose subjects were entering college freshmen, Experimental subjects not only changed their values significantly more than did Controls, but they also joined the NAACP in response to a mailed solicitation (which involved filling out an application and paying a $1 fee) significantly more often than did Controls (20% of all subjects joined, 51 out of 197 Experimental subjects and 18 out of 169 Controls) and elected significantly more frequently than did Controls to major in ethnic studies (if they were at a social science college). The author believed that these findings "suggest long-range behavioral effects as well as long-range value and attitude changes." He called attention to the ethical implications of his research.

EFFECT AREA(S): Values—change

TREATMENT(S): Attitudinal/Affective Manipulation—induced dissatisfaction with own values

Rokeach, M., & Cochrane, R. Self-confrontation with another as determinants of long-term value change. Journal of Applied Social Psychology, 1972, 2(4), 283-292.

The experiment was conducted to determine whether induced self-dissatisfaction with values would be as successful in producing value change in conditions of confrontation with a significant other as it had been (in other experiments) in conditions of self-confrontation. Three college psychology classes were assigned as groups to two Experimental groups and a No-treatment Control group. Both Experimental groups ranked 18 terminal values on the Rokeach Value Survey (1967). The treatment was presented to Experimental Group I in an impersonal manner and to Experimental Group II in a personal manner (the experimenter addressed subjects individually and showed an awareness of their values and attitudes). The experimenter then induced self-dissatisfaction with value-rankings as follows: (a) he pointed out the discrepancies in ranking between the two values of freedom and equality of another student population; (b) he suggested that the students from the other population were more interested in their personal freedom than in the freedom of others; (c) the subjects compared their rankings with the other rankings; (d) the subjects recorded the extent of their sympathy with civil rights demonstrations; (e) the experimenter showed the subjects a list of value-rankings which showed that those persons with small discrepancies in ranking between the values of freedom and equality had more sympathy with civil rights demonstrations than did those with large differences; and (f) the students compared their responses with the comparative information they had received. Posttests (a reranking of values) after 8 to 9 weeks showed significant and similar increases in the importance of freedom and equality in both Experimental groups when compared with the Control group. Certain other values, generally personal values, were ranked lower than before treatment. The findings suggested that a significant other did not prevent the value change produced by dissatisfaction with values. The authors implied that the significant other in therapeutic situations would neither help nor hinder value change. Such conclusions have implication for value manipulation and change via the mass media, according to the authors.

EFFECT AREA(S): Values—change
Attitudes—change

TREATMENT(S): Attitudinal/Affective Manipulation—induced dissatisfaction with own values

Rokeach, M., & McLellan, D. Feedback of information about the values and attitudes of self and others as determinants of long-term cognitive and behavioral change. Journal of Applied Social Psychology, 1972, 2(3), 236-251.

The study was concerned with whether inconsistencies between one's own value and attitude systems results in cognitive and behavioral change; specifically, the question posed was whether information about how others rank values requires a comparison with one's own ranking of values to produce value change. A hypothesis was not stated. One hundred forty-six college students were assigned to one of two Treatment conditions: (a) Self and Others Feedback—objective information was provided about the value-attitude systems of others and about the subject's own value-attitude system; and (b) Others Only Feedback—only information about others' value rankings was provided; and (c) No-treatment Control. Subjects in Condition (a) were given the dissatisfaction-inducing procedure described in the abstract by Rokeach, 1971. Subjects in Condition (b) were shown the value and attitude scores of other students but were not given measures of personal values ranking and attitudes. Four weeks after the treatments, subjects ranked the values (some for the second time). Four months after that, and shortly after the Kent State and Jackson State shootings had aroused student emotion, the Experimental subjects were solicited by mail to contribute to the Legal Defense Fund for campus demonstrators and to join the junior author's ad hoc Committee to End Racism. Both Experimental groups showed significant increases in their rankings of freedom and equality on the 4-week posttest (four other values showed nonhypothesized changes as well), but there was no difference in value rankings between the two groups. Out of 16 replies to the solicitation, 7 (out of 77) were from the Self-and-others-feedback group, 4 (out of 59) from the Others-only-feedback group, and 5 (out of 60) from the Control group. The Experimental respondees agreed to significantly more of the five volunteer actions proposed by the solicitation than did the Controls, including volunteering to join the Committee. From this the author concluded that his value-change method produced significant behavioral effects. A total of 180 subjects did not answer the solicitation. The author stated further that "significant changes in values and behavior can be brought about even when subjects are kept in the dark about their own values."

EFFECT AREA(S): Values—value-related behavior change

TREATMENT(S): Direct Training—value clarification

Simon, S. Value-clarification: Methodology and tests of an hypothesis in an in-service program relating to behavioral changes in secondary school students. Dissertation Abstracts International, 1959-60, 20, 228-229.

The study explored the effects of a value-clarification methodology on value-related behavior problems. It was hypothesized that as the values of the subjects were clarified, their behavior would change. An unspecified number of teachers used the value-clarification methodology with 10 children from their classrooms as part of an in-service training program. The value-clarification strategy, built upon the work of John Dewey and Louis Raths, was based on the following techniques: (a) the teacher asked questions related to the major concerns of the student: his attitudes, beliefs, interests, thoughts, feelings, activities, purposes, and aspirations; (b) the teacher asked questions which made use of the 14 clarification operations identified by Raths; (c) the teacher asked questions which tended not to have specific answers; and (d) the teacher asked questions which explored value response in terms of the five parts of the definition of value used in this study, i.e., whether the value response (1) was prized or cherished, (2) was part of a pattern, (3) was chosen as a free choice and from alternatives, (4) was affirmed when repeated to the person who made the statement, and (5) led to action. The behavior of treatment and subjects was described as accurately as possible before and after the training program. Results were compared with the behavior of an unspecified number of Control children. In the estimation of the author, "the conclusions of the study are cast in confusion." Only one child showed dramatic behavior change. The teachers who used the methodology most consistently (as rated by independent judges) did not report behavioral change in their students, while three teachers with the lowest methodology ratings did report change. Only one teacher was judged to be effective in using value clarification. The author stated a need for further research on value problems and the merits of value clarification.

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STATEMENT OF PURPOSE

PLANNING FOR MORAL/CITIZENSHIP EDUCATION is based on three assumptions: the need for and interest in moral/citizenship education are increasingly expressed in many segments of our society; the field is rich with diverse activities, theories, research, and promising directions to explore; a national coordinating effort is necessary to draw together this diversity and establish common ground and guidelines for future work across the field. To this end, the initial objectives of the planning program include: coordinating activities, sharing knowledge, identifying issues, convening informational planning conferences, examining managerial techniques, analyzing programmatic approaches, and preparing planning recommendations. An Advisory Group and Resource Panel will assist in shaping the planning program.

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